## Color and Material Schedule

**Project Address:** 831 Carroll

**Contractor:**

| | Location | Description | Manufacturer | Finish | Color | Notes |
|---|---|---|---|---|---|---|
| Lighting | Hall | Flushmount Ceiling (1 bulb) | Progress lighting, Maier, 1-light flushmount, P3910-09 | | Nickel | |
| | Living | Flushmont Ceiling | Progress lighting, Maier, 2-light flushmount, P3911-09 | | Nickel | |
| | Dining Room | 3-Light Chandelier | Progress lighting, Markor, P5199-09 light, P8823-01 shade | | Nickel / Beige | |
| | Kitchen at sink | Flushmount Ceiling (1 bulb) | Progress lighting, Maier, 1-light flushmount, P3910-09 | | Nickel | |
| | Kitchen | Flushmount Ceiling | Progress lighting, Maier, 2-light flushmount, P3911-09 | | Nickel | |
| | Kitchen | Undercabinet | 24" flourescent | | White | |
| | Bathroom 1 | 2-Light Vanity | Progress lighting, Maier, 2-light vanity, P7025-09EB | | Nickel | |
| | Bedrooms, 1-3 | Flushmount Ceiling | Progress lighting, Maier, 2-light flushmount, P3911-09 | | Nickel | |
| | Bedroom 1 closet | 1-light-flushmount | Progress lighting, Maier, 1-light flushmount, P3910-09 | | Nickel | |
| | Landing | 1-light-flushmount | Progress lighting, Maier, 1-light flushmount, P3910-09 | | Nickel | |
| | Bathroom 2 | 2-Light Vanity | Progress lighting, Maier, 2-light vanity, P7025-09EB | | Nickel | |
| | Stair top & landing | 1-light-flushmount | Progress lighting, Maier, 1-light flushmount, P3910-09 | | Nickel | |
| | Basement utility | Ceramic base lamp | (switched, no pull chain) | | White | |
| | Garage | Motion Detector Sconce Light | Dual Brite, SL-5318-WH-D | | White | |
| | Front Entry Porch | Recessed Can | Rated for damp locations, CFL | | white | |
| | Rear Entry Porch | Wall mounted | Patriot Lighting, Mission, MND0092A | | white or Nickel | |
| | Outlet and Switchplate Covers | | | | White | |
| | | | | | | |
| Plumbing Fixtures | Kitchen | Kitchen Faucet | Moen, Bronze Model: 7825 | | Chrome | at Menards |
| | Kitchen | Kitchen Sink | Moen, 33"X22"X8" Model 2212 | | Stainless | at Menards |
| | Bathroom (2) | Bathroom Faucet | Moen, High Arc CA84003BRB | | Chrome | at Menards |
| | Bathroom (2) | Recessed Oval Bowl Vanity Top | Imperial Marble, RCxx22SPW | | White | at Menards |
| | Bathroom (1) | Shower Valve, tub spout & head | Moen, 82008CBN | | Chrome | at Menards |
| Casework and Furnishings | Kitchen | Kitchen Cabinets | Midcontinent, full overlay 5-panel door, flat drawer | Oak | Natural | |
| | Kitchen | Kitchen Cabinet Hardware | Scrhock, all drawers and doors, H63 | | Nickel | at Menards or Home Depot |
| | Kitchen | Kitchen Counter Top | WilsonArt, Canyon Black, 1755-1 | | Canyon Black | at Menards |
| | Bathroom 1 & 2 | Bathroom Vanity | Midcontinent, full overlay 5-panel door, flat drawer | Oak | Natural | |
| | Bathroom 1 | Towel Bar 18" | Moen, Model # DN6818xx | | Nickel | at Menards |
| | Bathroom 2 | Towel Bar 24" (2) | Moen, Model # DN6818xx | | Nickel | at Menards |
| | Bathroom 1-2 | Toilet Paper Holder | Moen, Model # DN6808xx | | Nickel | at Menards |
| | Bathroom 2 | Curved Shower Rod | Moen, Model # DN2160xx | | Nickel | at Menards |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Coatings | Walls Throughout (except as specified below) | Wall Paint | Sherwin Williams No VOC, SW 6154 | flat | Nacre | Smooth finish |
| | Walls Kitchen | Wall Paint | Sherwin Williams No VOC, SW 6154 | eggshell | Nacre | Smooth finish |
| | Walls Bathrooms | Wall Paint | Sherwin Williams No VOC, SW 7036 | eggshell | Accessible beige | Smooth finish |
| | Walls Living / Dining | Wall Paint | Sherwin Williams No VOC, SW 7621 | flat | Silvermist | Smooth finish |
| | Ceiling Throughout (except kitchen and bathroom) | Ceiling Paint | Sherwin Williams No VOC | flat | ceiling white | Match existing texture |
| | Ceiling Kitchen and Bathrooms | Ceiling Paint | Sherwin Williams No VOC | eggshell | ceiling white | smooth finish |
| | Trim, casing, base, doors. | Paint color | Sherwin Williams No VOC SW 7006 | semi-gloss | extra white | |
| | | | | | | |
| | | | | | | |
| Flooring | Front Entry | Solid hardwood | Refinish existing hardwood | | | |
| | Living / Dining | Solid hardwood | Refinish existing and replace at converted porch with new hardwood to match species, depth & width of existing | | | |
| | Bathrooms | Ceramic tile | 1" mosaic tile | | White | |
| | Bathroom wall base 1-2 | Ceramic tile | 6" cove base | | White | |
| | Bathroom 2 shower surround | Ceramic tile | 6x6" field tile | | White | |
| | Kitchen, Entry | Ceramic tile | Shadow bay, | | Beach Sand | |
| | Bedrooms 1 - 4 | Carpet | Shaw, Serenity Garden | | Barn Wood | |
| | Second floor Hall | Carpet | Shaw, Serenity Garden | | Barn Wood | |
| | Front Stair | Carpet | Shaw, Serenity Garden | | Barn Wood | |
| | Basement Stair top landing | Carpet | Shaw, Serenity Garden | | barn Wood | |
| | Basement floor | Concrete sealer | | | | |
| | | | | | | |
| Appliances | Kitchen | Range | Frigidaire: FFGF3053LS | | Stainless | pre-purchased |
| | Kitchen | Microhood | Frigidaire: FFMV162LS | | Stainless | pre-purchased |
| | Kitchen | Refrigerator | Frigidaire: FFHT2126LS/K | | Stainless | pre-purchased |
| | Kitchen | Dishwasher | Frigidaire: FGHD2433KF | | Stainless | pre-purchased |
| | Laundry | Washer | Frigidaire: FAFW3801LW | | White | pre-purchased |
| | Laundry | Dryer | Frigidaire: FAQG7001LW | | White | pre-purchased |
| | | | | | | |
| Doors | Front Entry | Steel Entry Door | Patina, Rochester | | | at Menards |
| | Rear Entry | Steel Entry Door | Mastercraft LT-10 half view w/ internal blind | | | at Menards |
| | Garage | Steel Entry Door | Mastercraft, 6-panel, solid | | | at Menards |
| | Interior doors, pre-hung | Interior Door | Stile and rail, 5 equal panels | Poplar | Paint finish | |
| | Door Hardware | Throughout | Schlage, Merano levers | | Satin Nickel | at Menards |
| | | | | | | |
| Exterior Finishes | Siding | Paint color | Sherwin Williams SW 6207 | | Retreat | |
| | Porch skirt boards | Paint color | Sherwin Williams SW 7012 | | Creamy | |
| | Porch floor | Paint color | Sherwin Williams SW 3518 | | Hawthorne | |
| | Rear Stoop | Stain color | Sherwin Williams SW 3518 | | Hawthorne | |
| | Roof | Shingle color | GAF Elk 30 year HD shingle | | Weathered Wood | |
| | Foundation coating | | Match Sherwin Williams SW 3518 Hawthorne | | custom color | |
| | Windows | Clad wood | Marvin Clad Ultimate | | Medium Bronze | |
| | Door and Window Trim | Paint color | Sherwin Williams SW 7012 | | Creamy | |
| | Door panel at house | paint color | Match Marvin windows, Medium Bronze | | | |
| | Door panel at garage | Paint color | Sherwin Williams SW 7012 | | Creamy | |
| | Soffit/Fascia | Aluminum, prefinished | Edco | | Antique Parchment | |
| | Downspouts | Aluminum, field painted | Sherwin Williams SW 6207 | | Retreat | at United Products |
| | Gutters | Aluminum, prefinished | Edco | | Antique Parchment | at United Products |

Materials Pre-Purchased for: 831 Carroll Avenue

1. **Menards garage kit**
   Includes: framing and roof trusses, sheathing, service door and small window (see attached invoice for details)

2. **All, Inc. Appliances**
   Refrigerator: FFHT2126LS/K Energy Star Rated 21 cu ft top mount refrigerator, stainless steel, with icemaker
   Range: FFGF3053LS Frigidaire 30" Free-Standing Gas Range, Self Clean, Clock
   Microwave/Hood: FFMV162LS Over the Range Micro/Hood, to be vented to exterior
   Dishwasher: FGHD2433KF Energy STAR 24" Built-In Dishwasher, including dishwasher cord
   Washer: FAFW3801LW Energy STAR Residential Front Load Washer
   Dryer: FAQG7001LW Residential Gas Dryer

3. **Lampert Roofing**
   Includes: GAF Elk Timberline 30 year HD shingles, Timbertex, Ice & Water shield and 15 lb felt
   Shingle Color: Weathered Wood
   Shingle Location: House and New Garage

4. **Lampert Siding**
   Includes: Pre-primed Hardie Siding and Tyvek Housewrap
   Siding Location: House and New Garage

Delivery of all materials to the job site is included in pre-purchase. Contractor is responsible for contacting specified vendor to arrange for and take delivery. See attached invoices for specifics and vendor contact information.

# Delivery Agreement - Guest Copy

Delivery Agreement # 4466847

Page 1 of 1

CASHIER- Press 'Recall Trans' before scanning each of the barcodes below. You must scan ALL of the barcodes on this page. If there are additional pages of barcodes attached to this Delivery Agreement, each barcode on those sheets must be scanned as well

78252

| Guest Name - Address - Phone - Email |
|---|
| City of St Paul<br>831 Carroll<br>Saint Paul, MN 55104<br>(651)266-6581 NA NA |

| Setup Date: | 01/30/2012 |
|---|---|

| DELIVERY ADDRESS |
|---|
| 831 Caroll Ave.<br>Saint Paul, MN 55104 |

| PICKING LISTS TO BE DELIVERED |
|---|
| 78193<br>30118985 |
| TOTAL: |

**TERMS AND CONDITIONS**

1. The delivery charge will be as per the "Delivery Charge Rate Card," plus fuel surcharge if applicable.
2. Deliveries are during store operating hours. All efforts will be made to accommodate requested times.
3. All loads are taken off the truck and set/dumped (placed) on the driveway unless additional handling charges are paid
4. Adequate access and sufficent area is required to dump or unload materials on level grade. If the driver is instructed to unload the material in such a place that is likely to tear up a lawn, crack cement by driving over it, get the truck or material stuck, etc. the delivery service is not responsible and the delivery guest assumes complete responsibilty.
5. I agree that the delivery will be provided by an independently owned delivery service. I agree that all disputes over any damages I may suffer due to this delivery including damaged merchandise or shortages will be resolved through the delivery service and therefore agree to hold Menards and its employees harmless due to such damages.

**By purchasing this service and/or accepting product that is delivered, the purchaser agrees to the terms and conditions detailed above.**

## DELIVERY SERVICE

**For Delivery Services Inquiries Please Contact:**

Jim Thuman's Trucking

Jim Thuman
724 Madison St. NE
Minneapolis,MN 55413
Business Phone:(651)246-3452
Cell Phone:(651)246-3452
Email:jtdj6258@msn.com
**Insured through:**
Hatch Agency, Inc
6121 Baker Rd Suite 102
Minnetonka, MN 55345
**Agent:**Mike Hatch
(952)933-8080
mhatch@hatchagency.com

| DELIVERY PLACEMENT AND SPECIAL INSTRUCTIONS | DELIVERY CHARGES |
|---|---|
| garage package Quantity: 1 Placement: Driveway Comments: | Included |
| Mileage Charge Zone A Trip 1 Delivery Date: PENDING Delivery Time: PENDING | |
| TOTAL DELIVERY CHARGES | |

# MENARDS® PICKING LIST - GUEST COPY

STORE # 3181 SPMW
2005 W. University Ave.
St. Paul, MN 55104
PHONE: (651) 645-1295
FAX: (651) 645-9809

**CASHIER - PRESS RECALL TRANS AND SCAN BARCODE ==>**

**SPMW 78193**



**CASHIER:**

**PLEASE STAPLE**

**RECEIPT HERE.**

SOLD BY: mks
DATE: 01/30/12

GUEST NAME - ADDRESS - PHONE

City of St Paul
831 Carroll
Saint Paul, MN 55104

Ph: (651) 266-6581

| QUANTITY | DESCRIPTION | | SKU NUMBER | UNIT PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|
| 82 EACH | 2X4X92 5/8" SPF CONSTR | STUD | 102-1091 | | |
| 8 EACH | 2X4X10' STUD/#2+BTR SPF | CONST LUMBER | 102-1114 | | |
| 12 EACH | 2X4X12' #2+BTR SPF | CONST LUMBER | 102-1127 | | |
| 4 EACH | 2X4X14' #2+BTR SPF | CONST LUMBER | 102-1130 | | |
| 8 EACH | 2X4X16' #2+BTR SPF | CONST LUMBER | 102-1143 | | |
| 2 EACH | 2X6X8' STUD/#2+BTR SPF | CONSTR LUMBER | 102-1758 | | |
| 8 EACH | 2X6X14' #2+BTR SPF | CONSTR LUMBER | 102-1787 | | |
| 2 EACH | 2X12X18' #2&BTR FIR CONST | LUMBER | 102-2197 | | |
| 1 EACH | 2X4-6' AC2 TREATED AG | ARSENIC FREE LW | 111-0805 | | |
| 3 EACH | 2X4-10' AC2 TREATED AG | ARSENIC FREE LW | 111-0821 | | |
| 3 EACH | 2X4-12' AC2 TREATED AG | ARSENIC FREE LW | 111-0834 | | |
| 1 EACH | 1/2'' (15/32)-4'X8' CDX | 3-PLY 3-BLK STR | 123-1085 | | |
| 23 EACH | 7/16'' (14/32)-4'X8' OSB | 3-WHITE STRIPES | 124-2728 | | |
| 23 EACH | 1/2" (16/32)-4'X8' OSB | 2WHT 1BLK STRPE | 124-2809 | | |
| 2 EACH | 3 1/2" X 50' SILL SEALER FOAM | | 161-1602 | | |

**TO AVOID PRODUCT NOT BEING AVAILABLE ON A LATER DATE PLEASE PICK UP ALL MERCHANDISE TODAY. THANK YOU.**

This is a quote valid today. Upon payment this quote becomes a yard picking list subject to the terms and conditions below. Quantities listed above may exceed quantities available for immediate pick-up. Product is not held for a specific guest, but instead is available to the buying public on a first come, first serve basis. Please pickup all purchases made on this picking list immediately. Failure to pick up products on this picking list today will result in additional charge to you if, on the day of pick up, the retail price of the products are higher than on the day purchased. Menards liability to you is limited to refunding your original purchase price for any product not picked up.

**Guest Instructions:**

1. **Take this picking list to a cashier to pay for the merchandise.**
2. **Enter the outside yard to pick up your merchandise. (All vehicles are subject to inspection.)**
3. **Load your merchandise. (Menards Team Members will gladly help you load your materials but cannot be held liable for damage to your vehicle.)**
4. **When exiting the yard, present this list to the Gate Guard. (The Gate Guard will record the items you are taking with you.)**
5. **Sign the Gate Guard's signature pad verifying you've received the merchandise.**

PRE-TAX TOTAL: (CONTINUED)

Our insurance does not allow us to tie down or secure your load, trunk lid, etc. For your convenience, we supply twine, but you will have to decide whether or not your load is secure and if the twine supplied is strong enough. If you do not believe the twine will suffice, stronger material can be purchased inside the store.

READ THE TERMS AND CONDITIONS CAREFULLY. All returns are subject to Menards' posted return policy. In consideration for Menards low prices you agree that if any merchandise purchased by you is defective, Menards will agree to exchange the merchandise or refund the purchase price based on the form of original payment. You agree that there shall be no other remedy available to you. If there is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards shall be selling the product "AS IS." Oral statements do not constitute warranties, and are not a part of this contract. The guest agrees to inspect all merchandise prior to installing or using it. **UNDER NO CIRCUMSTANCES SHALL MENARDS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. MENARDS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE MERCHANDISE.** Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its applicable Consumer or Commercial Arbitration Rules, and judgments on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. The guest agrees to these terms and conditions through purchase of merchandise contained on this document.

**THIS IS NOT A RECEIPT**

**GATE GUARD - SCAN HERE ==>**

# MENARDS® PICKING LIST - GUEST COPY

STORE # 3181 SPMW
2005 W. University Ave.
St. Paul, MN 55104

PHONE: (651) 645-1295
FAX: (651) 645-9809

**CASHIER - PRESS RECALL TRANS AND SCAN BARCODE ==>**

**SPMW 78193**



**CASHIER:**

**PLEASE STAPLE**

**RECEIPT HERE.**

SOLD BY: mks
DATE: 01/30/12

GUEST NAME - ADDRESS - PHONE

City of St Paul
831 Carroll
Saint Paul, MN 55104

Ph: (651) 266-6581

| QUANTITY | DESCRIPTION | | SKU NUMBER | UNIT PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|
| 1 EACH | BB ENTRY GEORGIAN KNOB | F51VGEO505 | 221-3918 | | |
| 4 EACH | 1/2"PLYWD CLIP STEEL 25/ | BPC12-BMC 10BGS/ | 227-1303 | | |
| 20 EACH | RAFTER TIE | RT15-TZ | 227-1647 | | |
| 1 EACH | 36X24 VINYL SLIDER | CLEAR GLASS | 403-0633 | | |
| 1 EACH | CM1 6-PANEL STEEL DOOR PH | 36X80 LH SB | 414-1554 | | |
| 1 EACH | PINE TAPERED SHIMS 12 CT | 3/8X1-1/4X8'' | 433-4222 | | |

## TO AVOID PRODUCT NOT BEING AVAILABLE ON A LATER DATE PLEASE PICK UP ALL MERCHANDISE TODAY. THANK YOU.

This is a quote valid today. Upon payment this quote becomes a yard picking list subject to the terms and conditions below. Quantities listed above may exceed quantities available for immediate pick-up. Product is not held for a specific guest, but instead is available to the buying public on a first come, first serve basis. Please pickup all purchases made on this picking list immediately. Failure to pick up products on this picking list today will result in additional charge to you if, on the day of pick up, the retail price of the products are higher than on the day purchased. Menards liability to you is limited to refunding your original purchase price for any product not picked up.

**Guest Instructions:**

1. **Take this picking list to a cashier to pay for the merchandise.**
2. **Enter the outside yard to pick up your merchandise. (All vehicles are subject to inspection.)**
3. **Load your merchandise. (Menards Team Members will gladly help you load your materials but cannot be held liable for damage to your vehicle.)**
4. **When exiting the yard, present this list to the Gate Guard. (The Gate Guard will record the items you are taking with you.)**
5. **Sign the Gate Guard's signature pad verifying you've received the merchandise.**

Our insurance does not allow us to tie down or secure your load, trunk lid, etc. For your convenience, we supply twine, but you will have to decide whether or not your load is secure and if the twine supplied is strong enough. If you do not believe the twine will suffice, stronger material can be purchased inside the store.

**READ THE TERMS AND CONDITIONS CAREFULLY.** All returns are subject to Menards' posted return policy. In consideration for Menards low prices you agree that if any merchandise purchased by you is defective, Menards will agree to exchange the merchandise or refund the purchase price based on the form of original payment. You agree that there shall be no other remedy available to you. If there is a warranty provided by the manufacturer, that warranty shall govern your rights and Menards shall be selling the product "AS IS." Oral statements do not constitute warranties, and are not a part of this contract. The guest agrees to inspect all merchandise prior to installing or using it. **UNDER NO CIRCUMSTANCES SHALL MENARDS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. MENARDS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE MERCHANDISE.** Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its applicable Consumer or Commercial Arbitration Rules, and judgments on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. The guest agrees to these terms and conditions through purchase of merchandise contained on this document.

**THIS IS NOT A RECEIPT**

**GATE GUARD - SCAN HERE ==>**

MENARDS®

SPMW 30118985

CASHIER:

PLEASE

STAPLE

RECEIPT

HERE.

# SPECIAL ORDER CONTRACT
## GUEST COPY

STORE # 3181 SPMW
2005 W. University Ave.
St. Paul, MN 55104

PHONE: (651) 645-1295
FAX: (651) 645-9809

**THANK YOU!**

| GUEST NAME - ADDRESS - PHONE |
|---|
| City of St Paul<br>831 Carroll<br>Saint Paul, MN 55104<br>Ph: (651) 266-6581 |

ESTIMATED ARRIVAL DATE
NOT BINDING ON MENARD, INC.
BASED ON PROMISES BY OTHERS 02/09/12

| SOLD BY | ORDER DATE |
|---|---|
| PETER V. | 01/30/12 |

| QTY ORDERED | DESCRIPTION | | SKU | UNIT PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|
| 10 EACH | 22'STD 4/12 2'OC 2'OH | 62# | 187-1267 | | |
| 2 EACH | 22' STUDDED END FRAME | 4/12 PITCH | 187-1283 | | |

**This is a quote valid today. This quote becomes an order upon payment and a valid Menards receipt for this order is attached.**

**READ THIS CONTRACT CAREFULLY.** The terms and conditions set forth in this document are a complete and final expression of the parties. Any and all claims under this special order contract must be brought within one year of the purchase of said merchandise. **Special order merchandise** may be refunded at Menards sole discretion with a **25% restocking fee.** The purchaser is responsible for all measurements, sizes, and colors as stated above. The purchaser's exclusive remedy if the merchandise is defective or fails to conform to the terms of the contract is replacement of the merchandise. All defects and non-conformities must be reported to Menards within 3 days upon receipt of the merchandise. If there is a specific written warranty from the manufacturer the purchaser understands that this merchandise is sold on an **"AS IS,"** basis and the manufacturer's warranty shall govern my rights. **MENARDS MAKES NO WARRANTIES, EXPRESS OR IMPLIED AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE MERCHANDISE.** If the exclusive remedy fails its essential purpose, Menards liability shall not exceed the purchase price of the merchandise. **MENARDS SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.** In the event that the purchaser refuses to and or fails to pick up the merchandise within 30 days after receiving notification of its availability, Menards may liquidate the merchandise and shall be entitled to **25%** the purchase price as liquidated damages. Menards may withhold any payment received as partial satisfaction for its damages. If the vendor, which supplies the merchandise on this contract fails to perform, the purchaser agrees that Menards shall not be liable. Because of wide variations in codes, there are no representations that the materials listed herein meet your code requirements. The Purchaser agrees that any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by binding arbitration administered by the American Arbitration Association under its applicable Consumer or Commercial Arbitration Rules. A judgment on an award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

**YOUR PURCHASE OF THE MERCHANDISE ON THIS CONTRACT CONSTITUTES TERMS AND CONDITIONS LISTED IN THE CONTRACT.**

SUB-TOTAL:

SHIPPING:

PRE-TAX TOTAL:

VENDOR: **MIDWEST MANUFACTURING**

For the most accurate and up-to-date status of your order, please visit:

**www.menards.com**

**If this is a partial pickup, please verify all quantities/items being signed for. Menards is not responsible for shortages after leaving the yard.**

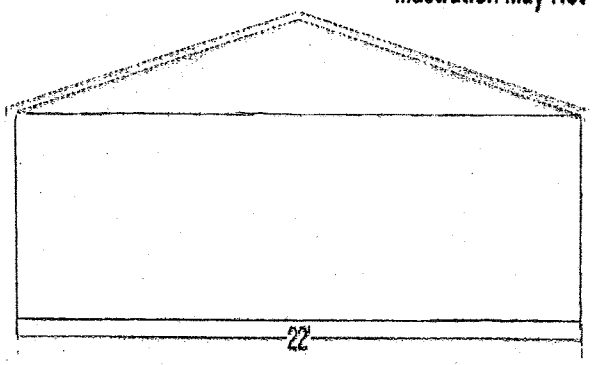
# Design # 74105

MENARDS Design-It Garage

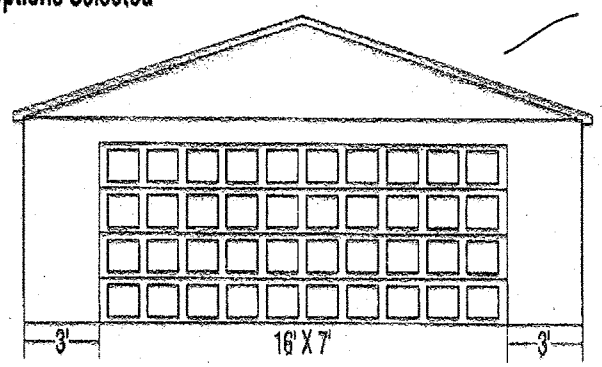


## *** Here are the wall configurations for your design.

Illustration May Not Depict All Options Selected

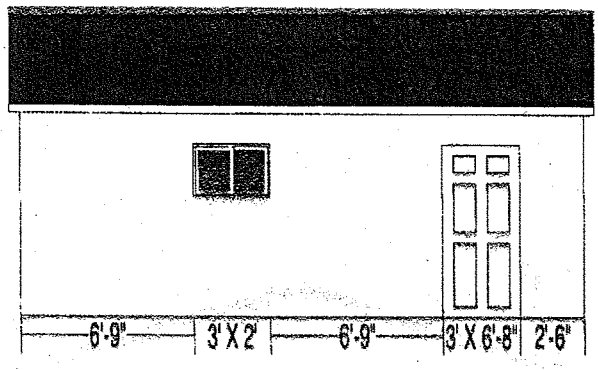



Gable Front View

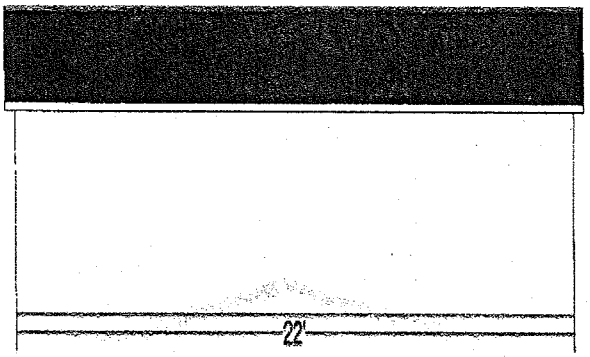



12/4 pitch

(1) - 16X7 WHITE NONINSL RAISEDPNL EXTSP M5ST




Eave Front View
(1) - 36X24 SELECT 100 SLID IGPC2SG3020
(1) - CM1 6-PANEL STEEL DOOR PH36X80 RH SB




Eave Back View

Building Size: 22 feet wide X 22 feet long X 8 feet high

Approximate Peak Height: 12 feet 0 inches (144 inches)

** ACKNOWLEDGEMENT **

Order #: S1276826
P/O # : 831 CARROLL AVE
Printed: 10:00:07 26 JAN 2012
Page # : 1 of 2
Order Phone: 651-266-6581
Cust. Phone: 651-266-6581

Sold To:
CITY OF ST. PAUL
DEPT PLANNING ECONOMIC / HRA
25 WEST 4TH STREET, SUITE 1100
SAINT PAUL, MN 55102
** C.O.D. ** C.O.D. ** C.O.D. **

Ship To:
CITY OF ST. PAUL
DEPT PLANNING ECONOMIC / HRA
831 CARROLL AVE
SAINT PAUL, MN 55107

| Ordered by | Order Date | Ship Date | Ship Via | Warehouse |
|---|---|---|---|---|
| PER RAGNELLO | 01/24/12 | 12/01/12 | OT DELIVERY | Shp 1 Prc 1 |

| Writer | Salesperson | Release # | Freight Allowed |
|---|---|---|---|
| Edmund Rustin | Ross Agnello | 831 CARROLL AVE | No |

| Ordered | Product Description | Net Prc | Ext Prc |
|---|---|---|---|
| | ********* Shipping Instructions *** | | |
| | * **TBD** | | |
| | ********** | | |
| 1ea | FFHT2126LS FRIGIDAIRE 21CF TOP MOUNT REFRIGERATOR; ESTAR; (STAINLESS) RIGHT HAND HINGE | | |
| | Serial#_____ | | |
| | >>CONFIRM DOOR HINGE<< | | |
| 1ea | IM115 FRIGIDAIRE ICE MAKER* | | |
| 1ea | SVC- INSTALL ICE MAKER KIT PRIOR TO DELIVERY: | | |
| 1ea | FFGF3053LS FRIGIDAIRE 30" GAS RANGE; (STAINLESS)* | | |
| | *SPECIAL ORDER ITEM - NO RETURNS* | | |
| | Serial#_____ | | |
| 1ea | FFMV162LS FRIGIDAIRE OTR MICROWAVE; (STAINLESS)* | | |
| | Serial#_____ | | |
| 1ea | FGHD2433KF FRIGIDAIRE GALLERY BUILT IN DISHWASHER; ESTAR; (STAINLESS)* | | |
| | *SPECIAL ORDER ITEM - NO RETURNS* | | |
| | Serial#_____ | | |
| 1ea | MIEDWC6 6' DISHWASHER/DISPOSAL CORD STRAIGHT CAP; | | |
| 1ea | SVC- INSTALL POWER CORD PRIOR TO DELIVERY: | | |
| 1ea | FAFW3801LW FRIGIDAIRE 3.8CF AFFINITY FRONT LOAD WASHER; (WHITE) | | |
| | *SPECIAL ORDER ITEM - NO RETURNS* | | |
| | Serial#_____ | | |

*** Continued on Next Page ***

** ACKNOWLEDGEMENT **

Order #: S1276826
P/O # : 831 CARROLL AVE
Printed: 10:00:07 26 JAN 2012
Page # : 2 of 2
Order Phone: 651-266-6581
Cust. Phone: 651-266-6581

Sold To:
CITY OF ST. PAUL
DEPT PLANNING ECONOMIC / HRA
25 WEST 4TH STREET, SUITE 1100
SAINT PAUL, MN 55102
** C.O.D. ** C.O.D. ** C.O.D. **

Ship To:
CITY OF ST. PAUL
DEPT PLANNING ECONOMIC / HRA
831 CARROLL AVE
SAINT PAUL, MN 55107

| Ordered by | Order Date | Ship Date | Ship Via | Warehouse |
|---|---|---|---|---|
| PER RAGNELLO | 01/24/12 | 12/01/12 | OT DELIVERY | Shp 1 Prc 1 |

| Writer | Salesperson | Release # | Freight Allowed |
|---|---|---|---|
| Edmund Rustin | Ross Agnello | 831 CARROLL AVE | No |

| Ordered | Product Description |
|---|---|
| 1ea | FAQG7001LW FRIGIDAIRE AFFINITY FRONT LOAD GAS DRYER; (WHITE) *SPECIAL ORDER ITEM - NO RETURNS* Serial#_____ |
| 4ea | SVC- UNCRATE AND SET: (free standing product only / built-ins left in carton) |
| 2ea | SVC- DROP DELIVERY: (no uncrate and set - drop only) |
| 1ea | SVC- INSTALL ANTI-TIPS: |
| 1ea | LABOR CHARGE / TAXABLE |
| -1ea | DISCOUNT: |

SUBTOTAL
SALES TAX

Total Amount

.. Reprint .. Reprint .. Reprint .. Reprint ..

Lumber • Building Materials
**Lamperts**

# Yard Delivery Order

9220 Hudson Blvd.
Lake Elmo MN 55042
Phone: 651-739-5400 Fax: 651-739-0267

*KEEP RECEIPTS FOR*
*RETURNS/EXCHANGES*

**Invoice #:**
**Invoice Date:** 01/26/2012

**Customer Master Account #:** 5154158
**Customer Job Account #:** 5154160

**Sold To:** CITY OF ST PAUL
PLANNING & ECON DEVELOP

St Paul, MN 55102

**Ship To:** CITY OF ST PAUL
831 CARROLL AVE.
ROOFING
St Paul, MN 55102

| Store No. | Order Ref. | Order Date | Customer PO | Sales Rep | Payment Terms | Invoice Type |
|---|---|---|---|---|---|---|
| 11 | 11257848 | | | 207 | STATEMENT DATE | YARD/DEL ORDER |

| Item No. | Qty Ordered | Qty Shipped | B/O | U/M | Description | Unit Price | Total |
|---|---|---|---|---|---|---|---|
| | | | | | 831 CARROLL AVE. | | |
| | | | | | ROOFING FOR HOUSE & NEW GARAGE. | | |
| | | | | | . | | |
| 07440070 | 72 | 72 | | BDL | GAF TIMBERLN HI-DF WEATHERD WD | | |
| | | | | | (24 SQR TOTAL) | | |
| 07410070 | 7 | 7 | | BDL | GAF/ELK TIMBERTEX 20' WEATHR WD | | |
| 07110250 | 8 | 8 | | EACH | GENERIC ICE&WATER GRAN 2SQ 3'X66 | | |
| 07100040 | 7 | 7 | | ROLL | FELT NO.15-36IN ASPHALT 4SQ | | |
| | | | | | Total Ship Units: 6695.000 LB | | |



| Filled By | Checked By | Shipped By | Ship Via: |
|---|---|---|---|
| | | | |

**AUTH:**

**OT:** ALEX BOETTCHER

Customer Signature: _____

Date: ____ / ____ / ____

11257848

CUSTOMER COPY

TOTAL

Lumber • Building Materials
**Lamperts**

# Yard Delivery Order

9220 Hudson Blvd.
Lake Elmo MN 55042
Phone: 651-739-5400 Fax: 651-739-0267

*KEEP RECEIPTS FOR*
*RETURNS/EXCHANGES*

**Invoice #:**
**Invoice Date:** 01/27/2012

**Customer Master Account #:** 5154158
**Customer Job Account #:** 5154160

**Sold To:** CITY OF ST PAUL
PLANNING & ECON DEVELOP

St Paul, MN 55102

**Ship To:** CITY OF ST PAUL
831 CARROLL AVE
SIDING
St Paul, MN 55102

| Store No. | Order Ref. | Order Date | Customer PO | Sales Rep | Payment Terms | Invoice Type |
|---|---|---|---|---|---|---|
| 11 | 11257926 | | | 207 | STATEMENT DATE | YARD/DEL ORDER |

| Item No. | Qty Ordered | Qty Shipped | B/O | U/M | Description | Unit Price | Total |
|---|---|---|---|---|---|---|---|
| | | | | | 831 CARROLL AVE. | | |
| | | | | | SIDING FOR HOUSE & NEW GARAGE. | | |
| | | | | | . | | |
| 06450015 | 617 | 617 | | EACH | HARDI SDG 5/16X7-1/4X12 CDRMI (37 SQR TOTAL) | | |
| 27558040 | 5 | 5 | | ROLL | HOUSEWRAP 9'X100' TYVEK | | |



| Filled By | Checked By | Shipped By | Ship Via: |
|---|---|---|---|
| | | | |

**AUTH:**

**OT:** ALEX BOETTCHER

Customer Signature: _____

Date: ____ / ____ / ____

11257926

**CUSTOMER COPY**

# Home Energy Rating Certificate

831 Carroll Ave

Saint Paul, MN 55106

**3 Stars Plus**
**As Is**

**Uniform Energy Rating System** — **Energy Efficient**

| 1 Star | 1 Star Plus | 2 Stars | 2 Stars Plus | 3 Stars | 3 Stars Plus | 4 Stars | 4 Stars Plus | 5 Stars | 5 Stars Plus |
|---|---|---|---|---|---|---|---|---|---|
| 500-401 | 400-301 | 300-251 | 250-201 | 200-151 | 150-101 | 100-91 | 90-86 | 85-71 | 70 or Less |

**HERS Index: 131**



## General Information

| | | | |
|---|---|---|---|
| Conditioned Area: | 2266 sq. ft. | HouseType: | Single-family detached |
| Conditioned Volume: | 17735 cubic ft. | Foundation: | More than one type |
| Bedrooms: | 3 | | |

## Mechanical Systems Features

| | |
|---|---|
| Heating: | Fuel-fired air distribution, Natural gas, 80.0 AFUE. |
| Water Heating: | Conventional, Natural gas, 0.56 EF, 40.0 Gal. |
| Duct Leakage to Outside: | RESNET/HERS default |
| Ventilation System: | None |
| Programmable Thermostat: | Heating: No Cooling: No |

## Building Shell Features

| | | | |
|---|---|---|---|
| Ceiling Flat: | R-11 | Exposed Floor: | R-0 |
| Vaulted Ceiling: | NA | Window Type: | D W Op (w/St) |
| Above Grade Walls: | R-11 | **Infiltration:** | |
| Foundation Walls: | R-0.0 | Rate: | Htg: 3470 Clg: 3470 CFM50 |
| Slab: | R-0.0 Edge, R-0.0 Under | Method: | Blower door test |

## Lights and Appliance Features

| | | | |
|---|---|---|---|
| Percent Interior Lighting: | 0.00 | Range/Oven Fuel: | Natural gas |
| Percent Garage Lighting: | 0.00 | Clothes Dryer Fuel: | Natural gas |
| Refrigerator (kWh/yr): | 691.00 | Clothes Dryer EF: | 2.67 |
| Dishwasher Energy Factor: | 0.46 | Ceiling Fan (cfm/Watt): | 0.00 |

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.99**

This information does not constitute any warranty of energy cost or savings.



**Registry ID:**
**Rating Number:** **526-1276**
Certified Energy Rater: Michael Childs
Rating Date: 5/18/2012
Rating Ordered For: City of Saint Paul

**Estimated Annual Energy Cost**

As Is

| Use | MMBtu | Cost | Percent |
|---|---|---|---|
| Heating | 201.9 | $1877 | 65% |
| Cooling | 0 | $0 | 0% |
| Hot Water | 22.1 | $199 | 7% |
| Lights/Appliances | 28.1 | $631 | 22% |
| Photovoltaics | -0.0 | $-0 | -0% |
| Service Charges | | $180 | 6% |
| **Total** | | **$2886** | **100%** |

**This home meets or exceeds the minimum criteria for all of the following:**

**TITLE**
**Company**
Address
City, State, Zip
Phone #
Fax #

# Home Energy Rating Certificate

831 Carroll Ave

Saint Paul, MN 55106

**5 Stars**
**Projected Rating**

**Uniform Energy Rating System** — **Energy Efficient**

| 1 Star | 1 Star Plus | 2 Stars | 2 Stars Plus | 3 Stars | 3 Stars Plus | 4 Stars | 4 Stars Plus | 5 Stars | 5 Stars Plus |
|---|---|---|---|---|---|---|---|---|---|
| 500-401 | 400-301 | 300-251 | 250-201 | 200-151 | 150-101 | 100-91 | 90-86 | 85-71 | 70 or Less |

**HERS Index:** **82**



## General Information

| | | | |
|---|---|---|---|
| Conditioned Area: | 2266 sq. ft. | HouseType: | Single-family detached |
| Conditioned Volume: | 17735 cubic ft. | Foundation: | More than one type |
| Bedrooms: | 3 | | |

## Mechanical Systems Features

| | |
|---|---|
| Heating: | Fuel-fired air distribution, Natural gas, 95.0 AFUE. |
| Water Heating: | Conventional, Natural gas, 0.67 EF, 40.0 Gal. |
| Cooling: | Air conditioner, Electric, 16.0 SEER. |
| Duct Leakage to Outside: | 80.00 CFM. |
| Ventilation System: | Balanced: 80 cfm, 15.0 watts. |
| Programmable Thermostat: | Heating: Yes Cooling: Yes |

## Building Shell Features

| | | | |
|---|---|---|---|
| Ceiling Flat: | R-50 | Exposed Floor: | R-0 |
| Vaulted Ceiling: | NA | Window Type: | NFRC .34 / .33 |
| Above Grade Walls: | R-13 | **Infiltration:** | |
| Foundation Walls: | R-0.0 | Rate: | Htg: 2170 Clg: 2170 CFM50 |
| Slab: | R-0.0 Edge, R-0.0 Under | Method: | Blower door test |

## Lights and Appliance Features

| | | | |
|---|---|---|---|
| Percent Interior Lighting: | 90.00 | Range/Oven Fuel: | Natural gas |
| Percent Garage Lighting: | 0.00 | Clothes Dryer Fuel: | Natural gas |
| Refrigerator (kWh/yr): | 691.00 | Clothes Dryer EF: | 2.67 |
| Dishwasher Energy Factor: | 0.46 | Ceiling Fan (cfm/Watt): | 0.00 |

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

**REM/Rate - Residential Energy Analysis and Rating Software v12.99**

This information does not constitute any warranty of energy cost or savings.



**Registry ID:**
**Rating Number:** **526-1276**
Certified Energy Rater: Michael Childs
Rating Date: 5/18/2012
Rating Ordered For: City of Saint Paul

**Estimated Annual Energy Cost**
Projected Rating

| Use | MMBtu | Cost | Percent |
|---|---|---|---|
| Heating | 126.6 | $1154 | 56% |
| Cooling | 1.0 | $29 | 1% |
| Hot Water | 18.8 | $169 | 8% |
| Lights/Appliances | 24.3 | $529 | 26% |
| Photovoltaics | -0.0 | $-0 | -0% |
| Service Charges | | $180 | 9% |
| **Total** | | **$2061** | **100%** |

**This home meets or exceeds the minimum criteria for all of the following:**

**TITLE**
**Company**
Address
City, State, Zip
Phone #
Fax #

Neighborhood Energy Connection

Residential Energy Specification

Customer: City of Saint Paul

Auditor: Michael Childs

Address: 831 Carroll Avenue

Phone: 651-221-4462 x145

| Spec ID# | Spec Title | Specification | Location / Notes |
|---|---|---|---|
| 106 | Replace Furnace and Water Heater with a combined space and water heating system for forced air | Install a 95%+ condensing water heater with a hydronic air handler sized to meet load of the house for space and water heating. Consult NEC for more details if needed | **Option 1.** |
| 104 | Replace Furnace with 95% AFUE, Multi-stage, Forced Air Furnace | Remove existing furnace, recycle all metal components and dispose of all other materials in a code legal dump. Install a new ENERGY STAR rated, gas-fired, multi-stage burner, forced air furnace with a minimum AFUE rating of 95%+ and ECM Motor with 2" rise above floor. Connect to existing duct work and gas line. New furnace to be vented with PVC piping per manufacturer's specifications. New furnace will have minimum limited warranties of 20 years on heat exchangers; 5 years on parts. Include auto setback thermostat controls, vent pipe & new shut-off valve. Rework cold air return if necessary to ensure easy access, good fit & easy replacement of air filter. An exterior return air filter box shall be installed on one side, | **Option 2.** |

| | | | |
|---|---|---|---|
| | | both sides or bottom of new furnace. Seal all exposed duct joints with duct mastic. Remove all existing cloth duct tape prior to installing mastic. | |
| 304 | Replace Water Heater with Power Vented .67 EF | Replace water heater with a power-vented water heater with an EF of .67. Include pressure & temperature release valve, discharge tube to within 6" of floor and PVC flue to power vent to exterior. | **Option 2.** |
| 310 | Install Central Air Conditioning Unit | Install 16 SEER split system central air conditioning unit, following local building code. Using OEM performance information and industry-approved procedures, confirm that the selected equipment satisfies/meets the load requirements at the system design conditions. | |
| 500 | Seal Attic Bypasses | Contractor shall seal all attic bypasses. Bypasses shall be defined as any break in the envelope of a house between a heated living space and an unheated area or exterior. Bypass locations include, but are not limited to, the following areas: chimneys, soil stacks, end walls, dropped ceilings, open plumbing walls and around duct work, electrical work and attic access points. Bypasses shall be sealed in such a manner that the movement of air through the bypass is essentially stopped. "Essentially stopped" means that air leakage will not be detected by an infrared scan when the house is pressurized to 30 Pascals. Materials to be used for sealing bypasses depend on the size and location of the bypass and meet code requirements. These materials include high quality caulks (20-year life span), polyethylene rod stock, foam, sheet rock, sheet metal, extruded polystyrene and densely packed insulation. | |

| | | | |
|---|---|---|---|
| 502 | Dense Pack Below Floor and blow above floor to R-50 | All bypasses shall be sealed before insulating in such a manner that the movement of air through the bypass is essentially stopped. "Essentially stopped" means that air leakage will not be detected by an infrared scan when the house is pressurized to 30 Pascals. Floored attics shall be blown below floor boards using the Dense Pack Method to a minimum density 3.5 lbs./ft³. Blow above floorboards to bring below and above total to R-50 or more. | **6" floored peak attic partially insulated –**<br><br>**dense pack.** |
| 510 | Blow Open Attic to R-50 | All bypasses shall be sealed before insulating in such a manner that the movement of air through the bypass is essentially stopped. Blow insulation to depth indicated on manufacturer's coverage chart, consistently and evenly to R-50. Insulation in the peak attic must be marked with a ruler to measure depth and a sign with the number of bags used and the date of the installation. | **1st floor front and back attics.** |
| 532 | Build Dam, insulate and weather strip attic hatch | Access hatch door to attic shall be insulated to R-44 and insulation dam constructed around opening. Opening shall be weather stripped to provide a tight seal. | |
| 520 | Insulate Open Kneewalls with Fiberglass Batts | All kneewalls shall have a top and bottom plate or blockers installed using a rigid material. Air-seal all joints, cracks and penetrations in finished material including interior surface to framing connections. Insulate all kneewalls to R-22 filling stud cavity vertically with R11 batts then crossing studs horizontally with R11 batts for a total of R22. Secure kneewall insulation with house wrap such as Tyvek. Insulate and weatherstrip kneewall doors. | **Option 1**—wall between upper front bedroom and unfinished attic above kitchen |
| 522 | Spray Foam Open Kneewalls | Install closed cell spray foam to kneewall at approximately 3" to achieve R21. Follow manufacturer's instructions to completely and evenly fill the cavity. Follow all code requirements. | **Option 2**—wall between upper front bedroom and unfinished attic above kitchen |

| | | | |
|---|---|---|---|
| 602 | Wall insulation - Exterior Application: Remove Wood Lap Siding, Drill, Dense Pack, Plug and Replace Siding | Siding shall be removed before drilling access holes. Determine cavities are free of hazards and can support dense packing pressures, locate drilling hazards, control dust when drilling from interior. Completely fill each cavity to a consistent density. Dense pack cellulose to a minimum density of 3.5 lbs./ft³ or dense pack spider fiberglass per manufacturer's instructions. Siding must be replaced without damage and nailed back with appropriate galvanized nails. Follow all applicable Lead Safe Work Practices as per the EPA's RRP Rules. | **Blown mineral wool existing. Method depends on extent of rehab work.** |
| 616 | Wall insulation - Interior Application: Dense Pack Cellulose | Exterior walls insulated from inside the house shall be drilled through to provide access. Determine cavities are free of hazards and can support dense packing pressures, locate drilling hazards, control dust when drilling from interior. Dense pack cellulose to a minimum density of 3.5 lbs./ft³ or dense pack spider fiberglass per manufacturer's instructions. Follow all applicable Lead Safe Work Practices as per the EPA's RRP Rules. | **Blown mineral wool existing. Method depends on extent of rehab work.** |
| 618 | Wall insulation - Interior Application: Fiberglass batt open cavities | Fit batt insulation between studs so that it fills the wall cavity without any gaps, voids, or compression. Call the NEC before sheet rocking. | **Blown mineral wool existing. Method depends on extent of rehab work.** |
| 620 | Wall insulation - Interior Application: Spray foam open cavities | Follow manufacturer's instructions to completely and evenly fill the cavity. Call the NEC for inspection before sheet rocking. | **Blown mineral wool existing. Method depends on extent of rehab work.** |
| 800 | Air Seal Rim Joist | Seal cracks and holes in rim joist using caulk, foam or other air tight materials. | |
| 1000 | Install ENERGY STAR Rated | Install an ENERGY STAR rated exhaust fan connected with insulated | |

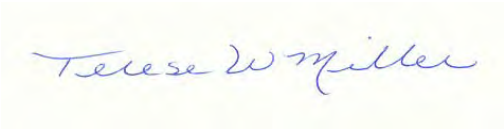
| | | | |
|---|---|---|---|
| | Kitchen Fan | rigid ductwork into a dampered vent. | |
| 1010 | Install ENERGY STAR Rated 2-stage Bathroom Fan | Install an ENERGY STAR rated two-speed bathroom fan .8 sones or less, with a pre-set low-speed of 10-30 CFM and a high-speed boost capability of 70-110 CFM initiated by a wall switch or motion detector. Vent bathroom fan using rigid duct and insulated with fiberglass and vented out with dampered roof vent. | |
| 1200 | Replace incandescents with CFLs | Replace incandescent bulbs with ENERGY STAR rated compact fluorescent lights. Install fixtures that meet the lighting needs of the particular area. | |
| 1210 | Install ENERGY STAR Rated Washing Machine | Connect new ENERGY STAR rated clothes washer sized appropriately for the household. Use braided steel water supply lines and a smooth rubber drain line connected to a 2 inch drain with trap. Remove existing washer, recycle all metal components and dispose of all other materials in a code legal dump. | |
| 1212 | Install ENERGY STAR Rated Dishwasher | Install ENERGY STAR rated dishwasher including all alterations and connections to plumbing and electric system. Remove existing dishwasher, recycle all metal components and dispose of all other materials in a code legal dump. | |
| 1214 | Install ENERGY STAR Rated Refrigerator | Install ENERGY STAR rated refrigerator sized appropriately for the household. Remove existing refrigerator, recycle all metal components and dispose of all other materials in a code legal dump. | |

**ASBESTOS AND LEAD-BASED PAINT SURVEY**
831 Carroll Avenue
St. Paul, Minnesota

*Prepared for:*

City of St. Paul
Department of Planning and Economic Development
1100 City Hall Annex
25 West 4th Street
St. Paul, Minnesota 55102-1623

*Submitted by:*



Terese W. Miller
Principal Consultant, CEO

St. Croix Environmental, Inc.
1094 Golden Oaks Drive
Hudson, Wisconsin 54016

January 26, 2012

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## APPENDICES

# 1. Introduction

St. Croix Environmental, Inc. (SCE) was retained by the City of St. Paul (the City) to administer a Survey of the property located at 831 Carroll Avenue in St. Paul, Minnesota (the Site). The Site is occupied by a single-family dwelling which is scheduled for rehabilitation.

The purpose of the work was to evaluate building materials suspected to contain asbestos and lead-based paint as follows:

- Identify asbestos containing materials (ACM) at the Site as defined by the Environmental Protection Agency (EPA), Minnesota Pollution Control Agency (MPCA), and the Minnesota Department of Health (MDH).
- Identify surfaces that contain lead-based paint prior to rehabilitation in accordance with US Department of Housing and Urban Development (HUD) guidelines.

The work did not include a survey for hazardous materials other than asbestos or lead-based paint.

# 2. Asbestos Survey

On January 14, 2012, Tim Marxhausen, a Minnesota Department of Health (MDH) Certified Asbestos Inspector with Parks Environmental Consulting, Inc. completed the building survey and sampling activities.

## 2.1. ACM Sampling

A list of the suspect asbestos materials that were sampled can be found on Table 1 in **Appendix I**. Materials other than those listed, and not sampled, were either: 1) not considered suspect for asbestos content (e.g. fiberglass insulation, concrete, brick, plastic); or, 2) inaccessible, such as materials in wall cavities, confined spaces, or locked rooms/areas. If suspect asbestos containing materials other than those listed and sampled are discovered at the Site, they should be considered asbestos containing until testing proves otherwise.

The samples were analyzed for asbestos content by EPA Method 600/R-93/116, at Schneider Laboratories, Richmond, Virginia. Schneider's laboratory is accredited for asbestos bulk material analysis under the National Institute of Sciences' National Voluntary Laboratory Accreditation Program (NVLAP). The analytical method's lower detection limit is one-percent asbestos by volume. The method provides a visual estimation of asbestos in the material sample.

### 2.2. ACM Results

A copy of the analytical laboratory report is included in **Appendix I**. The sample location diagram is also included the appendix.

**None of the materials sampled were found to contain asbestos**.

## 3. Lead-Based Paint Survey

On January 22, 2011, Andrew Myers, a Minnesota-licensed lead risk assessor with Midwest Environmental Consulting, performed a HUD lead-based paint inspection and risk assessment of the property. At the request of the City of Saint Paul (City), this report provides information in accordance with HUD guidelines regarding the identification of lead-based paint.

### 3.1. Lead-Based Paint Sampling

Observations for lead-based paint, conducted in accordance with HUD guidelines, include a description of condition. Materials containing lead-based paint would require stabilization prior to any demolition. Lead that that is not attached to the substrate must be managed and disposed in accordance with applicable hazardous waste and/or solid waste rules and regulations and cannot be managed as normal demolition material. Based on current regulatory definitions, lead-based paint is defined as paint containing lead concentrations equal to or greater than 1.0 milligrams per square centimeter (mg/cm2) when using a Niton XL X-ray fluorescence (XRF) analyzer. The XRF provides the measured lead concentration in weight of lead per unit area.

## 3.2. Lead-Based Paint Results

Results of the XRF analyzer are presented in **Appendix II.** Specific building components determined to have a lead concentration above the action level of (1.0 mg/cm$^2$) are listed below:

| LOCATION | COMPONENT |
|---|---|
| Porch | Painted wood window sill |
| Porch | Painted wood door |
| Dining Room | Painted plaster closet walls |
| Dining Room | Painted wood window trough |
| Den | Painted plaster closet walls |
| Kitchen | Painted plaster wall over concrete chimney |
| Kitchen | Painted wood door casing |
| Kitchen | Painted wood baseboards |
| Kitchen | Painted wood window trough |
| Stairway to basement | Painted wood door casing |
| Stairway to basement | Painted wood chair rail |
| Stairway to basement | Painted plaster walls |
| 2nd Floor Hall | Painted wood window trough |
| 2nd Floor Bathroom | Painted wood window trough |
| 2nd Floor Bathroom | Painted drywall walls &ceiling |
| Bedroom 2 | Painted wood window trough |
| Bedroom 3 | Painted drywall walls & ceiling |
| Exterior | Metal window components (depth index indicates lead beneath metal surfaces) |
| Exterior | Metal fascia, soffits & trim (depth index indicates lead beneath metal surfaces) |
| Exterior | Painted wood siding |
| Garage | Metal fascia |
| Garage | Painted wood window components |
| Garage | Painted wood door components |
| Garage | Painted wood siding |

## 4. Definitions

The following definitions apply to this report:

- The EPA/MPCA/MDH defines ACM as any material that contains greater than one percent asbestos by volume. Materials found to contain one percent or less asbestos by volume are not regulated as ACM by EPA/MPCA/MDH.
- Friable ACM is defined as any material that contains greater than one percent asbestos, and which can be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I non-friable ACM means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos. Category I non-friable ACM is not allowed to remain in place during renovation/rehabilitation if it is in a condition where the renovation/rehabilitation activities might cause it to become friable.
- Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than one percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to a powder by hand pressure. Category II nonfriable ACM is not allowed to remain in place during renovation or rehabilitation if it has a high probability of becoming crumbled, pulverized, or reduced to a powder during renovation, rehabilitation, transport, or disposal.

## 5. Inspection and Sampling Limitations

This survey report is intended to describe lead-based paint and ACM that may be present at the subject site, including those that may be impacted during renovation or rehabilitation activities. Services performed by the consultant were conducted in accordance with generally recognized industry standards and current MPCA and MDH guidelines, and in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances and under similar budget and time constraints. No other warranty is made or intended.

The survey is not intended to be technically exhaustive and no representation is made to the client, expressed or implied, and no warranty or guarantee is included or intended. It is possible that some materials were not identified during the course of the inspection at this site. Such unidentified materials would be those that are hidden from view, such as floor tile under floor tile or carpet, pipe insulation in wall cavities, materials out of reach in high ceiling areas, materials located under or behind finish materials, or materials inadvertently overlooked. Building materials known to possibly contain asbestos or lead-based paint which were not sampled as part of this survey should be assumed to be asbestos or lead containing until proven otherwise.

The consultant and/or inspector for this survey are not held responsible or liable for any repairs or replacements with regards to this property, systems, components, or the contents therein. Material samples were analyzed by an independent outside laboratory; the results of their analyses are presented herein. While we choose an established, reputable and certified lab to perform the sample analysis, SCE does not warrant the accuracy of the laboratory results.

The information contained in this report represents the consultant's best efforts to determine the presence of lead-based paint and ACM at the site given the site conditions. No inspection was carried out of flues, chutes, ducts, voids and any similar enclosed areas, the access to which would necessitate the use of specialist equipment or tools, or which would have caused damage to decoration, fixtures, fittings or the structure of the building. We are therefore unable to report on the presence of asbestos or lead in these areas, and accept no responsibility for the presence of such.

# ASBESTOS MATERIALS SURVEY REPORT

## HOUSE

**831 CARROLL AVENUE**
**ST. PAUL, MINNESOTA**

***Prepared for:***

**St. Croix Environmental**
**1094 Golden Oaks Drive**
**Hudson, Wisconsin**

***Prepared by:***

**Parks Environmental Consulting, Inc.**
**4749 Chicago Avenue S.**
**Minneapolis, Minnesota**
**(612) 353-6528**

**Parks Project # 9360**

**January 24, 2012**

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## LIST OF APPENDICES

## 1.0 Executive Summary

St. Croix Environmental, Inc. (SCE) contracted with Parks Environmental Consulting, Inc. (Parks) to conduct an inspection and sampling for asbestos-containing materials (ACM) in the vacant house located at 831 Carroll Avenue, St. Paul, Minnesota.

Mr. Tim Marxhausen of Parks conducted the asbestos and hazardous/special waste materials inspection, audit and sampling at the site January 14, 2012. Accessible interior and exterior building materials were surveyed, suspect asbestos materials were sampled in general accordance with Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) sampling rules, samples were analyzed for asbestos content, and this report was then prepared.

**None of the materials sampled were found to contain asbestos.**

Eleven types of suspect asbestos materials were sampled and tested. Of these materials, none were found to contain asbestos.

Details of the site inspection and sampling are provided in the following sections. A table listing each sampled suspect asbestos homogeneous material, its location and analytical result is located in Section 4.0 of this report, as is a table special waste materials. The laboratory report is included in Appendix A.

## 2.0 Background

SCE requested that Parks assist with the evaluation of building materials suspected to contain asbestos in the vacant house located at 831 Carroll Avenue, St. Paul, Minnesota. Parks inspected the building for suspect asbestos materials, sampled such materials, facilitated sample analysis by an outside laboratory, compiled the data, and prepared this report.

On January 14, 2012, Tim Marxhausen, Minnesota Department of Health (MDH) Certified Asbestos Inspector #AS-2271, inspected the building for suspect ACM. Parks collected 25 building material samples for asbestos analysis. The samples were analyzed at Schneider Laboratories in Richmond, Virginia.

### Asbestos Material Sampling

The following types of building materials were considered, for the purposes of this survey, suspect ACM, and thus sampled:

- Linoleum
- Vinyl Floor Tile (three types)
- Acoustical Ceiling Texture (two types)
- Drywall and Joint Compound
- Attic Insulation

- Wall Insulation
- Wall Plaster
- Sink Undercoat
- Chimney Patch Mortar

A Site Sketch indicating sample locations is provided in Appendix B.

## 3.0 Methods

Material samples were analyzed for asbestos content by Polarized Light Microscopy, EPA Method 600/R-93/116, at Schneider Laboratories, Richmond, Virginia. Schneider's laboratory is accredited for asbestos bulk material analysis under the National Institute of Sciences' National Voluntary Laboratory Accreditation Program (NVLAP). The analytical method's lower detection limit is one-percent asbestos by volume. The method provides a visual estimation of asbestos in the material sample.

## 4.0 Data and Findings Summary

The following table summarizes sampled suspect asbestos materials with their locations, and analytical results. Materials other than those listed here, and not sampled, were either: 1) not considered suspect for asbestos content (e.g. fiberglass insulation, concrete, brick, plastic); or, 2) inaccessible, such as materials in wall cavities, confined spaces, or locked rooms/areas. In general, except where noted, exterior building materials were not sampled. If suspect asbestos containing materials other than those listed and sampled below are discovered at the site, they should be considered asbestos containing until testing proves otherwise.

**TABLE 1 – Identified and Sampled Suspect ACM**

| Sample Number | Material Description | Location | Results |
|---|---|---|---|
| AINS-01A, B, C | Blown-in Insulation – beige/gray, fibrous | Attic | Non-Asbestos |
| CTEX-01A, B, C | Spray-Applied Acoustical Ceiling Texture | Main Level – Kitchen (west side), Living Room, Dining Room, West Room | Non-Asbestos |
| CTEX-02A, B, C | Spray-Applied Acoustical Ceiling Texture | Upstairs Level – All Ceilings, except bathroom | Non-Asbestos |
| FT-01A, B | 12" Square Vinyl Floor Tile (self-stick). Off-white with blue diamond pattern. | Main Level – Kitchen (top layer) | Non-Asbestos |
| FT-02A, B | 12" Square Vinyl Floor Tile. Gray/green mottle pattern. | Main Level – bottom of stairs | Non-Asbestos |

| TABLE 1 – Identified and Sampled Suspect ACM | | | |
|---|---|---|---|
| **Sample Number** | **Material Description** | **Location** | **Results** |
| FT-03A, B | 12" Square Vinyl Floor Tile. Gray faux marble pattern. | Upstairs Level – Bathroom | Non-Asbestos |
| LIN-01A, B | Linoleum – tan/cream pattern | Kitchen – bottom layer (under FT-01) | Non-Asbestos |
| PL-01A, B | Wall Plaster | Main Level – West Wall | Non-Asbestos |
| SRJC-01A, B, C, D, E | Sheetrock Drywall Wallboard with Joint Compound | Both Levels, Throughout | Non-Asbestos |
| SU-01 | Sink Undercoat, black | Main Level – kitchen sink | Non-Asbestos |
| WINS-01 | Wall Insulation – brown fibrous | Main Level – West Wall | Non-Asbestos |
| CM-01 | Chimney Patch Mortar – beige fibrous | Basement –where furnace flue enters chimney | Non-Asbestos |

## 5.0 Inspection and Sampling Limitations

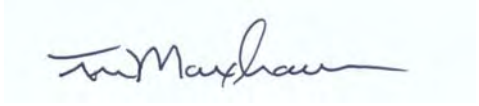
It is possible that some suspect asbestos, or asbestos containing, materials and hazardous materials were not identified during the course of the inspection at this site. Such unidentified materials would be those that are hidden from view, such as floor tile under floor tile or carpet, pipe or duct insulation in wall cavities, materials out of reach in high ceiling areas, materials located under or behind finish materials. Building materials known to possibly contain asbestos which were not sampled as part of this survey should be assumed to be asbestos containing until proven otherwise.

This document is an initial pre-renovation asbestos survey based on one site visit that included sampling of select materials. It is not an asbestos or hazardous material abatement scope of work. This document, associated drawing, lab report and attachments are not intended to be environmental bid specifications for the referenced site. This inspection and sampling occurred in January; the house had no heat, electricity or water service.

Material samples were analyzed by an independent outside laboratory; the results of their analyses are presented herein. While we choose an established, reputable and certified lab to perform the sample analysis, Parks does not warrant the accuracy of the laboratory results.

The information contained in this report represents Parks' best efforts to determine the presence of asbestos containing and other hazardous materials at the site given the site conditions. A copy of the MDH asbestos inspector's certification card is in Appendix C.

**Parks Environmental Consulting, Inc.**



January 24, 2012

Tim Marxhausen
Project Manager
MDH Certified Asbestos Inspector #AI2271

Date

# APPENDIX A

## ASBESTOS LABORATORY REPORT

# SCHNEIDER LABORATORIES GLOBAL

INCORPORATED
2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-359-1475
***Over 25 Years of Excellence in Service and Technology***
**AIHA/ELLAP 100527, ISO/IEC 17025, NVLAP 101150-0, VELAP 460135, NYELAP/NELAC 11413**

## LABORATORY ANALYSIS REPORT

Asbestos Identification by EPA Method[1] 600/R-93/116
Using SLI A6

**ACCOUNT #:** 3556-12-40
**CLIENT:** St. Croix Environmental, Inc.
**ADDRESS:** 1094 Golden Oaks Drive
Hudson, WI 54016
**PROJECT NAME:** House
**JOB LOCATION:** 831 Carrol St. Paul
**PROJECT NO.:**
**PO NO.:**

**DATE COLLECTED:** 1/14/2012
**DATE RECEIVED:** 1/17/2012
**DATE ANALYZED:** 1/17/2012
**DATE REPORTED:** 1/18/2012

**SampleType:** BULK

| Client Sample No. | SLI Sample/ Layer ID | Sample Identification/ Layer Name | PLM Analysis Results: Asbestos Fibers | PLM Analysis Results: Other Materials |
|---|---|---|---|---|
| AINS-01A | 31320941 | | | |
| Layer 1: | | Insulation<br>Beige, Fibrous | None Detected | 65% CELLULOSE FIBER<br>15% MINERAL/GLASS WOOL<br>20% NON FIBROUS MATERIAL |
| AINS-01B | 31320942 | | | |
| Layer 1: | | Insulation<br>Beige, Fibrous | None Detected | 65% CELLULOSE FIBER<br>15% MINERAL/GLASS WOOL<br>20% NON FIBROUS MATERIAL |
| AINS-01C | 31320943 | | | |
| Layer 1: | | Insulation<br>Beige, Fibrous | None Detected | 65% CELLULOSE FIBER<br>15% MINERAL/GLASS WOOL<br>20% NON FIBROUS MATERIAL |
| CTEX-01A | 31320944 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Drywall<br>White, Powdery | None Detected | 3% CELLULOSE FIBER<br>97% NON FIBROUS MATERIAL |

**Total Number of Pages in Report: 5**

Results relate only to samples as received by the laboratory. Visit www.slabinc.com for current certifications.

*Samples analyzed by the EPA Test Method are subject to the limitations of light microscopy including matrix interference. Gravimetric reduction and correlative analyses are recommended for all non-friable, organically bound materials. This method has a reporting limit of 1% or greater. Visual estimation contains an inherent range of uncertainty. This report must not be reproduced except in full with the approval of the lab, and must not be used to claim NVLAP or other gov't agency endorsement.*

| Client Sample No. | SLI Sample/ Layer ID | Sample Identification/ Layer Name | PLM Analysis Results: Asbestos Fibers | PLM Analysis Results: Other Materials |
|---|---|---|---|---|
| CTEX-01B | 31320945 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| CTEX-01C | 31320946 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| CTEX-02A | 31320947 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Drywall<br>White, Powdery | None Detected | 3% CELLULOSE FIBER<br>97% NON FIBROUS MATERIAL |
| CTEX-02B | 31320948 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Drywall<br>White, Powdery | None Detected | 3% CELLULOSE FIBER<br>97% NON FIBROUS MATERIAL |
| CTEX-02C | 31320949 | | | |
| Layer 1: | | Ceiling Texture<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Drywall<br>White, Powdery | None Detected | 3% CELLULOSE FIBER<br>97% NON FIBROUS MATERIAL |
| FT-01A | 31320950 | | | |
| Layer 1: | | Floor Tile<br>Gray, Organically Bound | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Clear, Soft | None Detected | 100% NON FIBROUS MATERIAL |

**Total Number of Pages in Report: 5**

Results relate only to samples as received by the laboratory.

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| Client Sample No. | SLI Sample/ Layer ID | Sample Identification/ Layer Name | PLM Analysis Results: Asbestos Fibers | PLM Analysis Results: Other Materials |
|---|---|---|---|---|
| FT-01B | 31320951 | | | |
| Layer 1: | | Floor Tile<br>Gray, Organically Bound | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Clear, Soft | None Detected | 100% NON FIBROUS MATERIAL |
| FT-02 | 31320952 | | | |
| Layer 1: | | Floor Tile<br>Gray/Black, Organically Bound | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Soft | None Detected | 100% NON FIBROUS MATERIAL |
| FT-03A | 31320953 | | | |
| Layer 1: | | Floor Tile<br>Gray/Black, Organically Bound | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Clear, Soft | None Detected | 100% NON FIBROUS MATERIAL |
| FT-03B | 31320954 | | | |
| Layer 1: | | Floor Tile<br>Gray/Black, Organically Bound | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Clear, Soft | None Detected | 100% NON FIBROUS MATERIAL |
| LIN-01A | 31320955 | | | |
| Layer 1: | | Linoleum<br>Beige, Org.Bound/Fibrous<br>No Mastic Found. | None Detected | 35% CELLULOSE FIBER<br>15% MINERAL/GLASS WOOL<br>50% NON FIBROUS MATERIAL |
| LIN-01B | 31320956 | | | |
| Layer 1: | | Linoleum<br>Beige, Org.Bound/Fibrous | None Detected | 35% CELLULOSE FIBER<br>15% MINERAL/GLASS WOOL<br>50% NON FIBROUS MATERIAL |
| Layer 2: | | Mastic<br>Tan, Soft | None Detected | 100% NON FIBROUS MATERIAL |

**Total Number of Pages in Report: 5**

Results relate only to samples as received by the laboratory. Visit www.slabinc.com for current certifications.

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| Client Sample No. | SLI Sample/ Layer ID | Sample Identification/ Layer Name | PLM Analysis Results: Asbestos Fibers | PLM Analysis Results: Other Materials |
|---|---|---|---|---|
| PL-01A | 31320957 | | | |
| Layer 1: | | Plaster<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Drywall<br>White, Powdery | None Detected | 4% CELLULOSE FIBER<br>96% NON FIBROUS MATERIAL |
| PL-01B | 31320958 | | | |
| Layer 1: | | Plaster<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| Layer 2: | | Skim Coat<br>White, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| SRJC-01A | 31320959 | | | |
| Layer 1: | | Sheetrock<br>White, Powdery | None Detected | 4% CELLULOSE FIBER<br>96% NON FIBROUS MATERIAL |
| Layer 2: | | Joint Compound<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| SRJC-01B | 31320960 | | | |
| Layer 1: | | Sheetrock<br>White, Powdery | None Detected | 4% CELLULOSE FIBER<br>96% NON FIBROUS MATERIAL |
| Layer 2: | | Joint Compound<br>Beige, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| SRJC-01C | 31320961 | | | |
| Layer 1: | | Joint Compound<br>White, Granular<br>No Sheet Rock Found. | None Detected | 100% NON FIBROUS MATERIAL |
| SRJC-01D | 31320962 | | | |
| Layer 1: | | Sheetrock<br>White, Powdery | None Detected | 4% CELLULOSE FIBER<br>96% NON FIBROUS MATERIAL |
| Layer 2: | | Joint Compound<br>White, Granular | None Detected | 100% NON FIBROUS MATERIAL |

**Total Number of Pages in Report: 5**

Results relate only to samples as received by the laboratory.

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| Client Sample No. | SLI Sample/ Layer ID | Sample Identification/ Layer Name | PLM Analysis Results: Asbestos Fibers | PLM Analysis Results: Other Materials |
|---|---|---|---|---|
| SRJC-01E | 31320963 | | | |
| Layer 1: | | Sheetrock<br>White, Powdery | None Detected | 4% CELLULOSE FIBER<br>96% NON FIBROUS MATERIAL |
| Layer 2: | | Joint Compound<br>White, Granular | None Detected | 100% NON FIBROUS MATERIAL |
| SU-01 | 31320964 | | | |
| Layer 1: | | Bituminous Material<br>Black, Bituminous | None Detected | 2% CELLULOSE FIBER<br>98% NON FIBROUS MATERIAL |
| WINS-01 | 31320965 | | | |
| Layer 1: | | Insulation<br>Brown, Fibrous | None Detected | 85% CELLULOSE FIBER<br>15% NON FIBROUS MATERIAL |
| CM-01 | 31321542 | | | |
| Layer 1: | | Fibrous Material<br>Beige, Fibrous | None Detected | 85% CELLULOSE FIBER<br>15% NON FIBROUS MATERIAL |

**Analyst:** **MOHAMMED B. HASHIM**

**Reviewed By:** **Hind Eldanaf, Microscopy Supervisor**

**Total Number of Pages in Report: 5**

Results relate only to samples as received by the laboratory.

Visit www.slabinc.com for current certifications.

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**ST. CROIX ENVIRONMENTAL**
Golden Oaks Drive, Hudson, WI 55 Telephone: (715) 381-5701

# ASBESTOS BULK SAMPLE REQUEST FORM



| | | | |
|---|---|---|---|
| **LABORATORY:** SCHNEIDER LABORATORIES, INC. | 2512 West Cary Street, Richmond, VA 23220 | 800-785-5227 | **ST. CROIX ACCT #:** |
| **CLIENT NAME & ADDRESS** City of St. Paul | | | **Sample Date:** 01-14-12 |
| | **Turnaround Time:** 48 Hour | | |
| | **Analysis:** PLM Standard | | |
| **Site:** House at 831 Carroll, St. Paul, MN | **Special Instructions:** *Fax results to St. Croix and Parks Environmental* | | |
| **Sampled by:** Tim Marxhausen (MDH AI-2271) | **Project No.** | | |

| Sample Number | Sample Number | Sample Number | Sample Number | Sample Number | Sample Number |
|---|---|---|---|---|---|
| AINS-01A | FT-01B | SRJC-01C | | | |
| AINS-01B | FT-02 | SRJC-01D | | | |
| AINS-01C | FT-03A | SRJC-01E | | | |
| CTEX-01A | FT-03B | SU-01 | | | |
| CTEX-01B | LIN-01A | WINS-01 | | | |
| CTEX-01C | LIN-01B | | | | |
| CTEX-02A | PL-01A | | | | |
| CTEX-02B | PL-01B | | | | |
| CTEX-02C | SRJC-01A | | | | |
| FT-01A | SRJC-01B | | | | |

WorkOrderKey
V : \ 862 \ 862642

RECEIVED
JAN 17 2012
BY: FADI GHRAIZI

UPS 3661 s

**Sampled & Relinquished by:** T Marxhausen
**Date & Time** 1-16-12 UPS

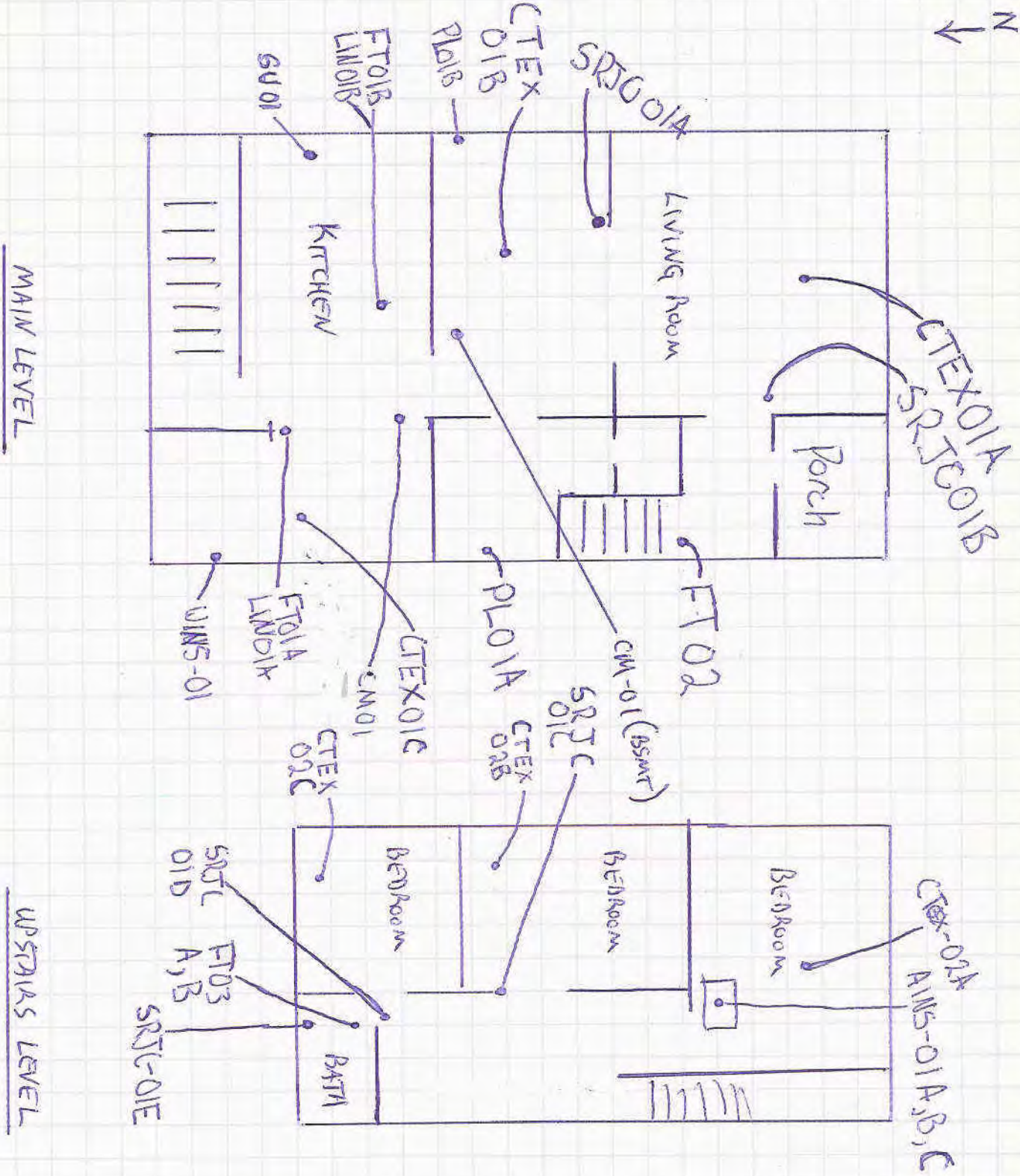
**Received by:**
**Date & Time** **Sealed Condition Yes / No**

# APPENDIX B

## SITE SKETCH WITH SAMPLE LOCATIONS

PARKS
Environmental Consulting, Inc.
4749 Chicago Avenue S.
Minneapolis, MN 55407

Project No. 9360 Page 1 of 1
Project Name SCE / DPED House Surveys
By Tim M. Date 1-14-12
Subject ASBESTOS SURVEY - 831 CARROLL AVE



# APPENDIX C

## INSPECTOR CERTIFICATION CARD

MDH

**ASBESTOS INSPECTOR**

Certified by:
State of Minnesota
Department of Health

**Expires: 04/21/2012**

**Timothy J Marxhausen**
**4805 Elliot Ave**
**Minneapolis, MN 55417**

Director, Env. Health Div.

No. AI2271

Issued: 05/04/2011

Midwest
Environmental
Consulting, L.L.C.

January 25, 2012

Kevin Miller
St. Croix Environmental, Inc.
1094 Golden Oaks Drive
Hudson WI 54016

RE: HUD Lead-Based Paint Inspection and Risk Assessment at the Single Family Residential Property, 831 Carroll Avenue, St. Paul, Minnesota (St. Croix Environmental Phone: 715-381-5701)

Dear Kevin Miller:

At the request of St. Croix Environmental, Midwest Environmental Consulting, L.L.C. (MEC) performed a HUD lead-based paint inspection and risk assessment of the single family residential property located at 831 Carroll Avenue, St. Paul, Minnesota on January 22, 2012.

Andrew Myers, MEC, Minnesota-licensed lead risk assessor (MN LR #578) performed all field work associated with this project. MEC credentials can be found in Appendix A.

The purpose of this project was to determine whether lead-based paint or other lead hazards are present on the interior or exterior surfaces of the residential property. This report contains the results of the HUD lead-based paint inspection and risk assessment. No dust wipe samples or bare soil samples were collected as a part of this evaluation at the request of St. Croix Environmental.

The inspection was conducted following the Housing and Urban Development (HUD) *"Guidelines for the Evaluation and Control of Lead-Based Paint in Housing,"* using Chapter 5 and the October 1997 revised Chapter 7 protocols. The sampling criteria used are those outlined in the HUD Standards 24 CFR Part 35 et al, "*Requirements for Notification Evaluation and Education of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance.*" No lead dust wipes or soil samples were collected as a part of this evaluation at the request of St. Croix Environmental, Inc. and Parks Environmental Consulting, Inc.

According to HUD protocol, if the first 5 of a building component are identified as positive for lead-based paint, the remaining like components are assumed to be lead-based paint containing.

## SITE DESCRIPTION

The single family residential property located at 831 Carroll Avenue, St. Paul, Minnesota is a two story wood framed structure built on a concrete basement and foundation constructed in approximately the early 1900's. The interior walls and ceilings are a combination of plaster and drywall. Window systems are a combination of double hung wood and vinyl windows. The exterior siding is wood. There is metal cladding on exterior windows, soffits, fascia & trim. There is a detached wood framed garage with wood siding and metal trim.

Bare soil was not observed on the day of the site evaluation due to snow cover. The house is currently vacant.

## RESULTS OF PAINT INSPECTION

MEC used a paint inspection sampling strategy as described in the HUD *Guidelines* (1995 and revised Chapter 7 in October 1997). The results of portable X-Ray Fluorescence (XRF) spectrum analysis of representative building components in each functional area or room are shown in Appendix B. Results are organized and shown in actual sequence of analysis. All tests were made using a Niton® XLp 306 X-Ray Fluorescence Spectrum Analyzer (Serial # 22554).

XRF analytical results in Appendix B, in the column labeled "Results" represent lead concentrations per square centimeter of painted surface ($mg/cm^2$).

HUD regulations 24 CFR Part 35 et al, the HUD *Guidelines* and the Minnesota Department of Health (MDH) define the paint action level as lead concentrations at or above the level of 1.0 $mg/cm^2$ when measured with a portable XRF instrument (0.5% by weight when measured by laboratory methods).

The lead-based paint risk assessment protocol described in the HUD *Guidelines* and the EPA regulations rely on evaluation of surface coatings meeting the definition of poor, planned renovations, presence of dust and soil above current EPA and Minnesota Department of Health (MDH) Standards.

Tests are performed on each test combination. A test combination consists of unique combinations of substrate, color, building component, and location.

XRF results are classified as positive or negative. A positive classification indicates that lead is present on the testing combination at or above the HUD standards. It's important to note that the limited inspection of surfaces tested only applies to those surfaces areas tested and does not meet the requirements of a full HUD lead-based paint inspection and those surface areas not tested would be assumed to contain lead-based

paint.

Appendix B includes a record of XRF calibration checks. Those checks were performed on thin films supplied by the XRF manufacturer; they contain known concentrations of lead. The graphs in that appendix show the variation of quality control with time. The assays in the table of raw data (Appendix B) that are labeled "Calibrate" indicate that they are for quality control. Additional quality control data and information are available to you upon request.

| | |
|---|---|
| Side A: | South, faces Carroll Avenue |
| Side B: | West, faces residential properties |
| Side C: | North, faces alley |
| Side D: | East, faces residential properties |

Specific building components determined to have a lead concentration above the action level of (1.0 $mg/cm^2$) are listed below:

| LOCATION | COMPONENT |
|---|---|
| Porch | Painted wood window sill |
| Porch | Painted wood door |
| Dining Room | Painted plaster closet walls |
| Dining Room | Painted wood window trough |
| Den | Painted plaster closet walls |
| Kitchen | Painted plaster wall over concrete chimney |
| Kitchen | Painted wood door casing |
| Kitchen | Painted wood baseboards |
| Kitchen | Painted wood window trough |
| Stairway to basement | Painted wood door casing |
| Stairway to basement | Painted wood chair rail |
| Stairway to basement | Painted plaster walls |
| 2nd Floor Hall | Painted wood window trough |
| 2nd Floor Bathroom | Painted wood window trough |
| 2nd Floor Bathroom | Painted drywall walls & ceiling |

| | |
|---|---|
| Bedroom 2 | Painted wood window trough |
| Bedroom 3 | Painted drywall walls & ceiling |
| Exterior | Metal window components (depth index indicates lead beneath metal surfaces) |
| Exterior | Metal fascia, soffits & trim (depth index indicates lead beneath metal surfaces) |
| Exterior | Painted wood siding |
| Garage | Metal fascia |
| Garage | Painted wood window components |
| Garage | Painted wood door components |
| Garage | Painted wood siding |

Also included in Appendix B of this report is a rating of the condition of paint on components (column titled "Condition"). Comments on the condition include:

**Intact:** good condition; **Fair:** less than 2 square feet of damage to large interior surface, i.e., wall, less than 10 square feet of damage to large exterior surface, i.e., outside walls, or less than 10% damage to small surface areas, i.e., baseboards, trim, etc.; **Poor:** more than 2 square feet of damage on large interior surfaces, more than 10 square feet of damage to large exterior surface areas, or more than 10% damage to small surface areas.

## RESULTS OF LEAD RISK ASSESSMENT

The risk assessment portion of this investigation involved collecting information about the property through a visual inspection of the dwelling and reviewing paint test data. No lead dust wipe samples or bare soil samples were collected during this risk assessment. It will be assumed that lead dust hazards are above the defined action levels. It is also assumed that if bare soil is present that the bare soil levels are above the defined action levels.

- The date of construction of the residence is approximately the early1900's.
- The property is a single family residential structure.
- Windows are a combination of wood windows and vinyl windows. Exterior metal cladding on windows.
- The exterior siding is wood on the house and garage.
- There is metal cladding on soffits, fascia & trim.

- Interior walls & ceilings are a combination of drywall & plaster.
- There is a detached wood framed garage with alley access.
- Bare soil was not observed due to snow cover.
- The property is currently vacant.

**Visual Inspection**

MEC conducted an inspection of painted and varnished surfaces on the interior and exterior of the residence. Emphasis was placed on chewable surfaces within 5 feet of the ground or floor.

The results of the visual inspection indicate that the interior of the structure is mainly in poor condition with some components in fair or intact condition.

Please note, however, the condition report within the XRF table for painted or varnished surfaces found to be fair or poor, that were below the 1.0 $mg/cm^2$ action level.

Dust wipe and bare soil samples were not collected from the residence as a part of this evaluation at the request of St. Croix Environmental and will be assumed to be above defined MDH/HUD lead hazard levels. Water and sodium rhodizonate swabs were also not collected as part of this project.

## RECOMMENDATIONS

Lead-based paint or lead hazards were found during the inspection and risk assessment of the property including original vintage painted wood windows, painted wood baseboards, painted wood interior doors & door components, drywall walls & plaster walls & ceiling, under exterior metal cladding on the house and garage, and wood siding on the house and garage.

At the request of the City of St. Paul, only abatement options are provided for lead hazards identified during this evaluation. Abatement options can include removal of building components to the substrate and replacement with new lead free products; enclosure of building components under dust tight barriers, encapsulation or removal of coatings to the substrate and re-coating with lead free coatings.

**Porch:**

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood walls & trim: In poor condition.

- Option 1: Remove wall system using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

**Dining Room:**

Painted wood door: In poor condition.

- Option 1: Remove door components to raw opening using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2; Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

**Den:**

Painted plaster closet walls: In poor condition.

- Option 1: Remove wall systems using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

**Kitchen:**

Painted plaster wall (over concrete chimney): In intact condition.

- Option 1: Include into an Operation & Maintenance Plan with ongoing monitoring. NOTE: The lead-based paint is likely under the plaster wall and on the chimney underneath.
- Option 4: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood door casing: In poor condition.
- Option 1: Remove door components to raw opening using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood baseboards: In poor condition.
- Option 1: Remove baseboards using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Enclose baseboards under a dust tight barrier and include into an Operation & Maintenance Plan with ongoing monitoring..
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.
- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

**Stairway to Basement:**
Painted wood door casing: In poor condition.
- Option 1: Remove door components to raw opening using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood chair rails: In poor condition
- Option 1: Remove chair rail using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted plaster walls: In intact condition.
- Option 1: Remove wall systems using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 3: Encapsulate with an approved lead abatement encapsulant such as Safe Encasement® or equivalent and include into an Operation & Maintenance

Plan with ongoing monitoring.
- Option 4: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

**2nd Floor Hall:**
Painted wood window components: In poor condition.
- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

**Bathroom:**
Painted wood window components: In poor condition.
- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted drywall walls and ceiling: In intact condition.
- Option 1: Remove wall systems using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.

**Bedroom 2:**
Painted wood window components: In poor condition.
- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

**Bedroom 3:**
Painted drywall walls and ceiling: In intact condition.
- Option 1: Remove wall systems using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier using Lead Safe Work Practices and include into an Operation & Maintenance Plan with ongoing monitoring.

**Exterior:**
Metal window cladding (depth index indicates lead beneath the metal surfaces):In intact condition.
- Option 1: Remove and replace damaged metal cladding using Lead Safe Work Practices making sure that seams and seals are maintained in a sealed

condition using elastomeric caulking and include into an Operation & Maintenance Plan with ongoing monitoring.

- Option 2: Remove metal cladding using Lead Safe Work Practices and replace with new lead free products.
- Option 3: Remove cladding & coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Metal soffits, & fascia (depth index indicates lead beneath the metal surfaces: In intact condition.

- Option 1: Include into an Operation & Maintenance Plan with ongoing monitoring. (The metal cladding is already an enclosure). Ensure that seams are maintained in a sealed condition with elastomeric caulk.
- Option 2: Remove components to substrate using Lead Safe Work Practices and replace with new lead free products.
- Option 3: Remove coatings under cladding to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood siding & some exposed wood fascia: In poor condition.

- Option 1: Remove siding using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier such as low maintenance siding using Lead Safe Work Practices. Ensure that all seams and seals remain in a sealed condition with elastomeric caulk.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

**Garage:**

Metal soffits & fascia (depth index indicates lead beneath the metal surfaces: In poor condition.

- Option 1: Repair any damaged metal cladding. Ensure that seams are maintained in a sealed condition with elastomeric caulk and include into an Operation & Maintenance Plan with ongoing monitoring.
- Option 2: Remove components to substrate using Lead Safe Work Practices and replace with new lead free products.
- Option 3: Remove coatings under cladding to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood window components: In poor condition.

- Option 1: Remove window components to raw opening using Lead Safe Work Practices and replace with new lead free products
- Option 2: Remove coatings to bare substrates using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood door casing: In poor condition.

- Option 1: Remove door components to raw opening using Lead Safe Work Practices and replace with new lead free components.
- Option 2: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

Painted wood siding & some exposed wood fascia: In poor condition.

- Option 1: Remove siding using Lead Safe Work Practices and replace with new lead free products.
- Option 2: Enclose under a dust tight barrier such as low maintenance siding using Lead Safe Work Practices. Ensure that all seams and seals remain in a sealed condition with elastomeric caulk.
- Option 3: Remove coatings to bare substrate using Lead Safe Work Practices and re-coat with lead free coatings.

**Lead Dust Hazards**

No lead dust wipes were collected as a part of this evaluation. It is assumed that lead dust is a hazard throughout the property and that dust levels within the complex above the Minnesota Department of Health, the Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) lead dust levels of 40 micrograms per square foot ( $\mu g/ft^2$) for a floor surface, 250 $\mu g/ft^2$ for a window sill (stool) surface, and 400 $\mu g/ft^2$ for a window well (trough) surface. All window systems and floors will be required to be cleaned with a good household cleaner and wet methods.

**Lead in Bare Soil**

Bare soil was not observed on the date of the site evaluation due to snow cover. No bare soil samples were collected as a part of this evaluation. If bare soil is present, it is assumed to be above the Minnesota Department of Health defined action level of 100 parts per million.

- Abatement Option 1: Removal of bare soil and replacement with new soil of 25 parts per million or less of lead.
- Abatement Option 2: Covering bare soil with asphalt, concrete or other impervious material.

When qualified contractors are performing the planned renovation/remodeling activities, precautions should be properly done to minimize the potential for lead-based paint contamination to the workers, occupants and the environment.

## DISCUSSION

The mere presence of lead-coated surfaces does not create a lead hazard. Maintenance of lead containing coatings will prevent lead from becoming a hazard. Lead-based paint above the action level of 1.0 $mg/cm^2$ was found on surfaces tested.

If exterior surfaces are to be remediated and because lead-coatings are present, covering the ground and providing adequate protection to soil is very important if bare soil is present.

Dust wipe samples were not collected lead dust levels are assumed to be above the action levels on floor and window surfaces as defined by MDH, HUD and EPA. Contractors will be required to clean all floor systems and window surfaces throughout the complex for lead hazards in dust following and as a part of the planned restoration.

The preceding lead reduction recommendations include different ways to treat each lead hazard that was identified by the risk assessment/inspection. The most effective treatments are considered abatement and require little or no ongoing maintenance to preserve a lead safe environment. The less effective treatments are called interim controls and these treatments require an increased amount of ongoing maintenance to preserve a lead safe environment.

If no lead dust, soil, or lead-based paint is found, then no monitoring is required.

If no hazards are found, but lead-based paint is found, then reevaluation should occur every three years, and an owner's visual survey should occur annually.

If lead dust, soil, or lead-based paint hazards are found to be present, choosing the option with removal of all lead-based paint will result in no monitoring requirements. If abatement options are chosen that include enclosure, then no re-evaluation is required, but the owner should conduct visual surveys every year to ensure the enclosure has not failed. If the interim control options (stabilize and paint) are chosen, then re-evaluation should occur after the first year and then every two years after that. Visual surveys by the owner should occur annually. If the enclosure option is chosen, the owner must conduct a visual evaluation at (6) months and annually thereafter. If the encapsulation option is selected, the owner must conduct a visual evaluation at (1) month, then at (6) months and annually thereafter.

If lead dust levels are found to be more than ten times the standard levels, then reevaluation after interim control measures should occur six months after the hazard reduction.

In general, all painted surfaces should be monitored. A negative result does not necessarily indicate that no lead is present in that surface, but rather indicates that any lead present in that surface does not rise above the 1.0 $mg/cm^2$ threshold in the areas tested. Therefore, all painted surfaces should be maintained in accordance with the Minnesota Department of Health standards.

**ROUGH ESTIMATED COSTS:**

- Work site preparation for interior, approximately $75.00 to $250.00 per room.
- Window replacement, approximately $150.00 and up, depending on style.
- Exterior preparation approximately $35.00 to $75.00 per component (i.e., windows, doors), removal or enclosure.
- Work area cleaning: $0.15 to $0.35 per square foot.
- Paint stabilization: $0.20 to $0.65 per square foot.
- Removal: Paint - chemical stripper: $0.65 to $1.50 square foot.
- Soil Remediation:
  a. Clean-up of visible exterior paint chips: $0.90 to $1.35 square foot.
  b. Seed and tack grass: $0.45 to $0.75 square foot.
  c. Sod: $1.25 to $3.30 square foot.
  d. Regrade at foundation and sod: $3.00 to $5.00 square foot.
  e. Mulch - 4": $0.50 to $0.90 square foot.
  f. Concrete: $4.50 to $8.00 square foot.
  g. Replace soil: $42.00 to $65.00 cubic yard.

If work is going to be performed on these surfaces, individuals and/or contractors should be informed of the results of testing. At a minimum, the person(s) performing the work should follow the requirements of the Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1926.62, Lead in the Construction Industry.

For the protection of the occupants and workers, and because of the use of federal funds, you are required by the HUD rules to use qualified firms who are knowledgeable about the hazards associated with lead. Supervisor should be licensed and workers will be required to be licenced or certified, as MEC understands the scope of work.

Please maintain a copy of the lead inspection/risk assessment report for your records and provide a copy of the report to any contractors that may be involved in any future renovations or remodeling projects.

A copy of this lead inspection/risk assessment summary must be provided to purchasers or lessees (tenants) of this property under Federal Law (24 CFR Part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract.

The complete report must also be provided to new purchasers and it must be made

available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards.

It has been our pleasure to provide this service to you and your organization. Please contact me if you have questions relating to any aspect of this work.

Respectfully submitted,

Andrew Myers
Environmental Project Manager

# APPENDIX A

# INSPECTOR CREDENTIALS

# Minnesota Department of Health

has authorized

**Midwest Environmental Consulting, LLC**
**145 2nd Ave SE**
**Cambridge, Minnesota 55008**

in accordance with Minnesota Statutes, section 144.9505 and Minnesota Rules, part 4761.2200, to practice in the State of Minnesota as a

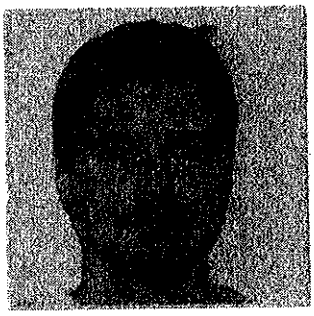
# Certified Lead Firm

**License No: LF551**
**Expires 03/28/2012**

This certificate is nontransferable.

Linda B. Bruemmer

**Linda B. Bruemmer, Director**
**Division of Environmental Health**



Director, Env. Health Div.

MDH LEAD
Risk Assessor

Licensed by:
State of Minnesota
Department of Health

**License No. LR578**
**Expires 08/25/2012**

**Andrew J Myers**
**210 2nd St N**
**New Prague, MN 56071**

# Andrew J. Myers

has completed the Minnesota-Approved Lead Training course entitled:

**Lead Risk Assessor Refresher Training**

**August 25, 2011**

given by

Midwest Environmental Consulting, L.L.C.
145 - 2nd Avenue SE, Cambridge, MN 55008
Phone: 763.691.0111

**SUCCESSFULLY PASSED THE EXAMINATION ON August 25, 2011, IN Cambridge, MINNESOTA**

IDENTIFICATION NUMBER: MEC/LRAR 0847
Expiration Date: August 25, 2012
MDH Permit Number: RAR-006

Course Director/Primary Instructor

*Approved by the State of Minnesota under Minnesota Rules, parts 4761.2000 to 4761.2700.*

I-0031

# Lead Inspector Independent Examination

121 East Seventh Place, Suite 220 • St. Paul • Minnesota 55101 • (651) 215-0700

*This certifies that*

## Andrew Myers

*has successfully passed the required independent examination for:*

## Lead Inspector

March 22, 2001
Morris, Minnesota

*This certificate is nontransferable.*

Jan K. Malcom
Commissioner

Patricia A. Bloomgren, Director
Division of Environmental Health

**Andrew J. Myers**

has completed the Minnesota-Approved Lead Training course entitled:

**Initial Lead Inspector Training**
**March 12-14, 2001**

given by

Midwest Environmental Consulting, L.L.C.
145 - 2nd Avenue SE, Cambridge, MN 55008

SUCCESSFULLY PASSED THE EXAMINATION ON MARCH 14, 2001, IN MORRIS, MINNESOTA

IDENTIFICATION NUMBER: MEC-LIT-0053
Expiration Date: March 14, 2002
MDH Permit No: LI-003

Course Director

RA-0239

# Lead Risk Assessor Independent Examination

121 East Seventh Place, Suite 220 • St. Paul, Minnesota 55101 • (651) 215-0700

*This certifies that*

## Andrew Myers

*has successfully passed the required independent examination for:*

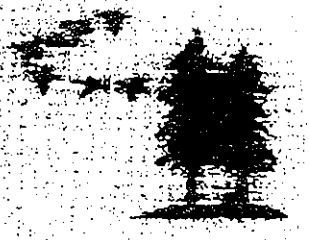
## Lead Risk Assessor

June 26, 2001
Minneapolis, Minnesota

*This certificate is nontransferable.*

Jan K. Malcom
Commissioner

Patricia A. Bloomgren, Director
Division of Environmental Health



**Andrew J. Myers**

has completed the Minnesota Approved Lead Training course entitled:

**Lead-Based Paint Risk Assessor Training**

**June 25-26, 2001**

given by

Midwest Environmental Consulting, L.L.C.
145 - 2nd Avenue SE, Cambridge, MN 55008

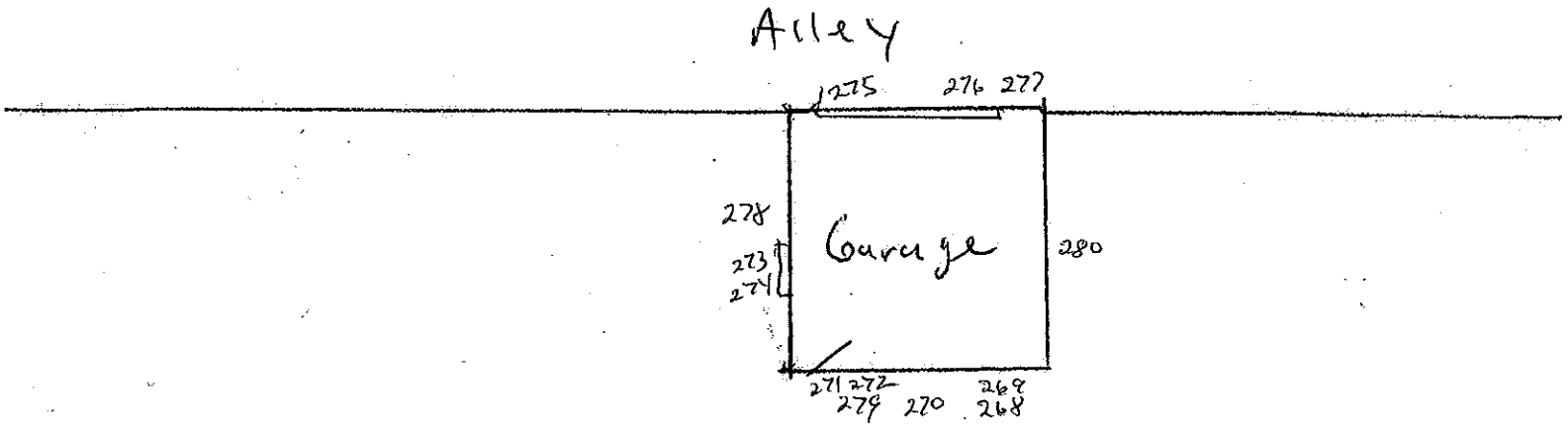
- SUCCESSFULLY PASSED THE EXAMINATION ON JUNE 26, 2001, IN MINNEAPOLIS, MINNESOTA

IDENTIFICATION NUMBER: MEC/LRA 0111
Expiration Date: June 26, 2002
MDH Permit #: RA1-002

Course Director

# APPENDIX B

XRF TEST RESULTS
SAMPLING MAPS
DATA PAGES
CALIBRATION DATA

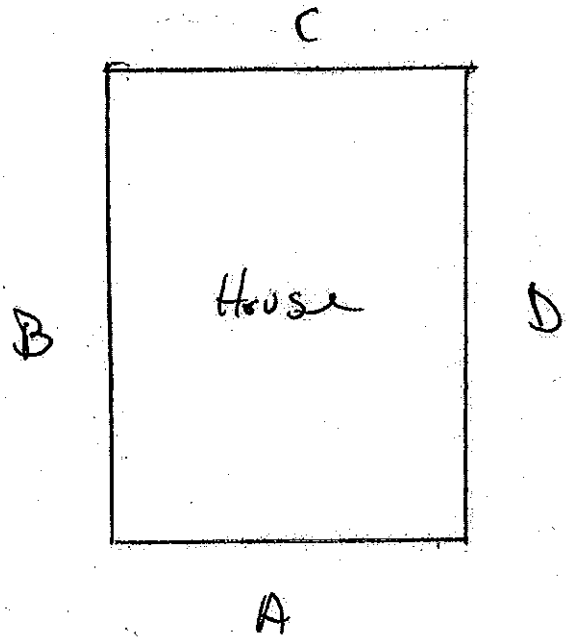



SITE PLAN
831 CARROLL AVENUE
ST. PAUL, MN
SKETCH NOT TO SCALE
DRAWN BY: ANDREW MYERS
MIDWEST ENVIRONMENTAL
CONSULTING
DATE: 01/22/12

N

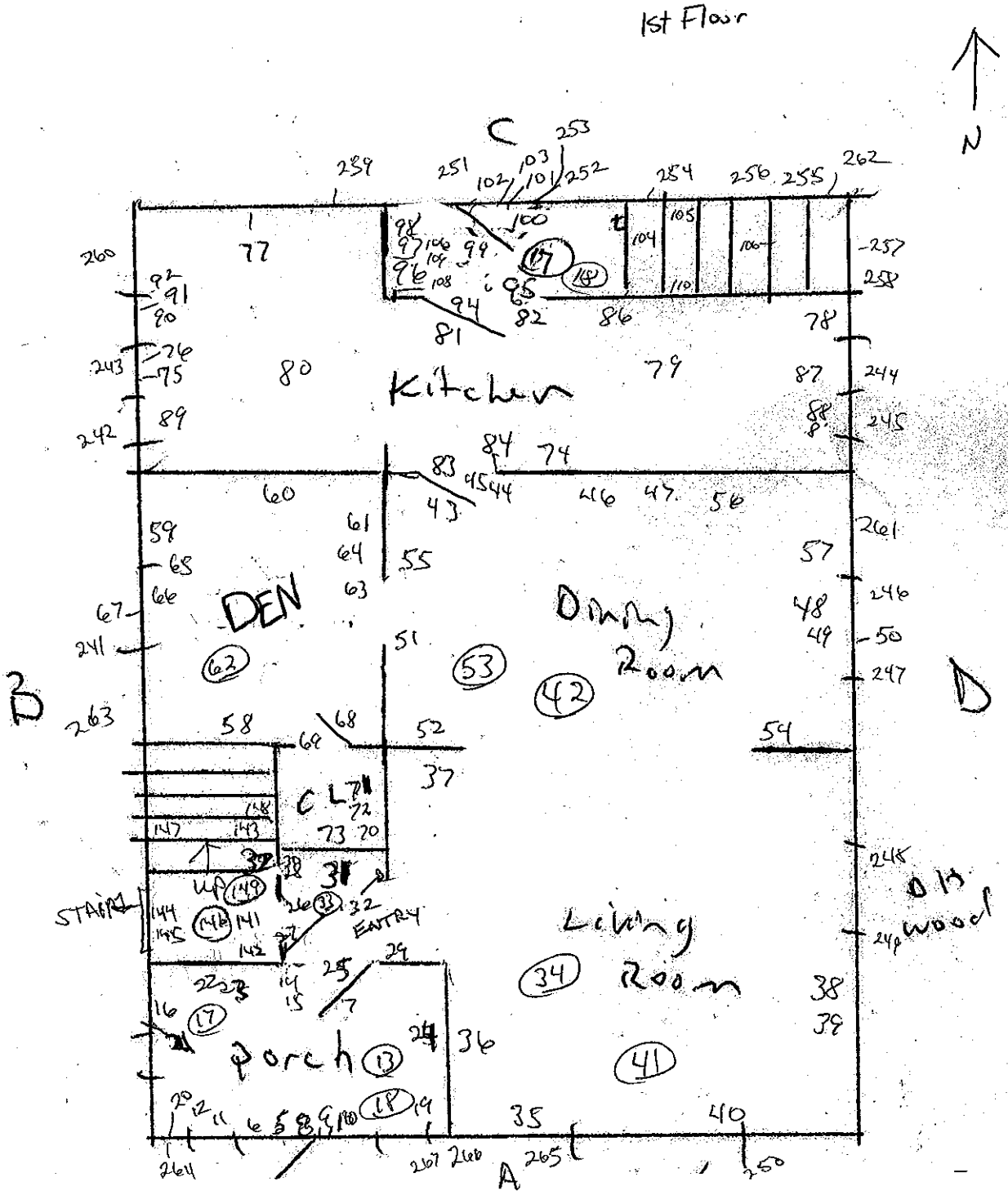
Residential

Residential

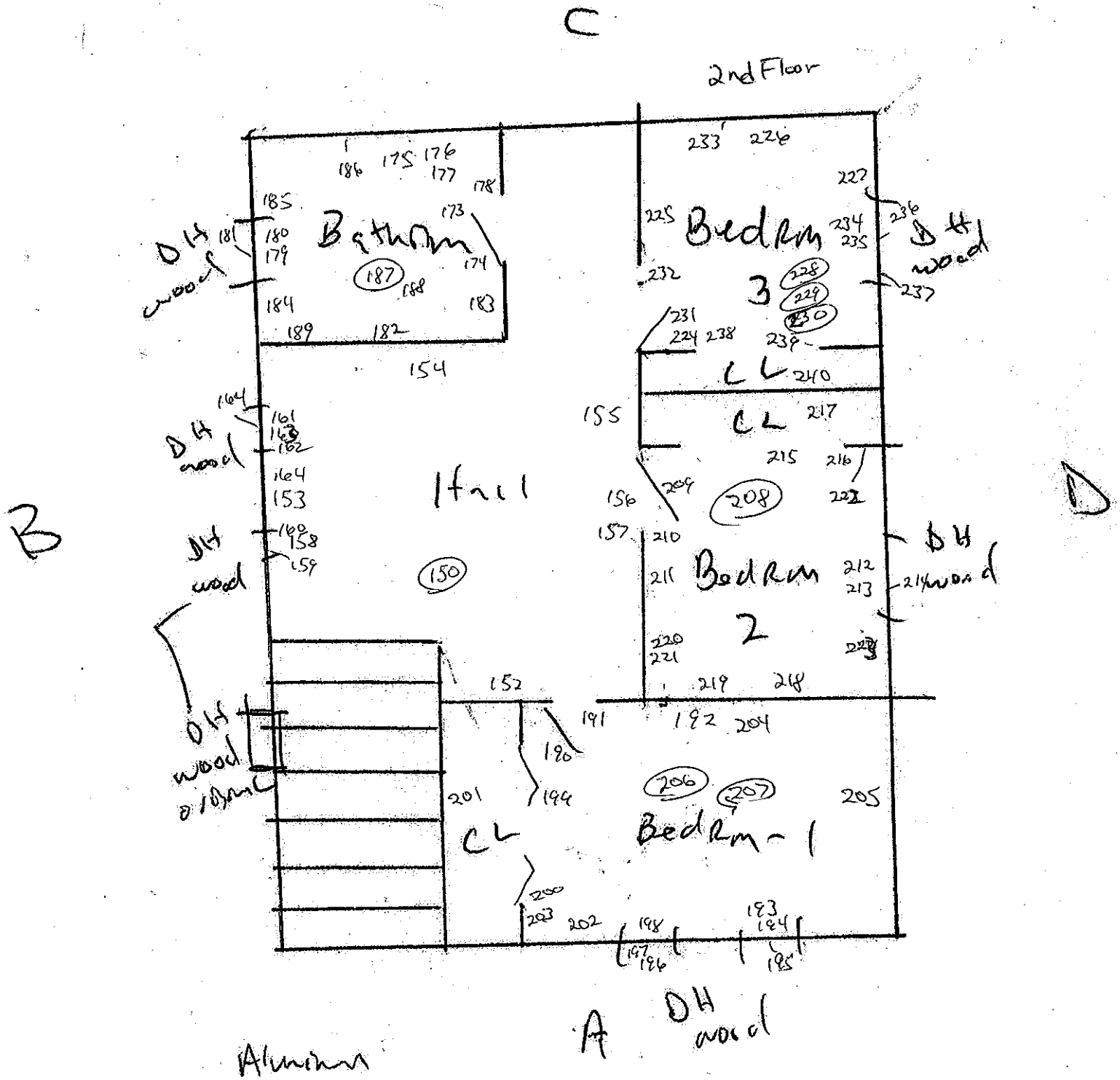



Carroll Ave

FIRST FLOOR
831 CARROLL AVENUE
ST. PAUL, MN
SKETCH NOT TO SCALE
DRAWN BY: ANDREW MYERS
MIDWEST ENVIRONMENTAL
CONSULTING
DATE: 01/23/12

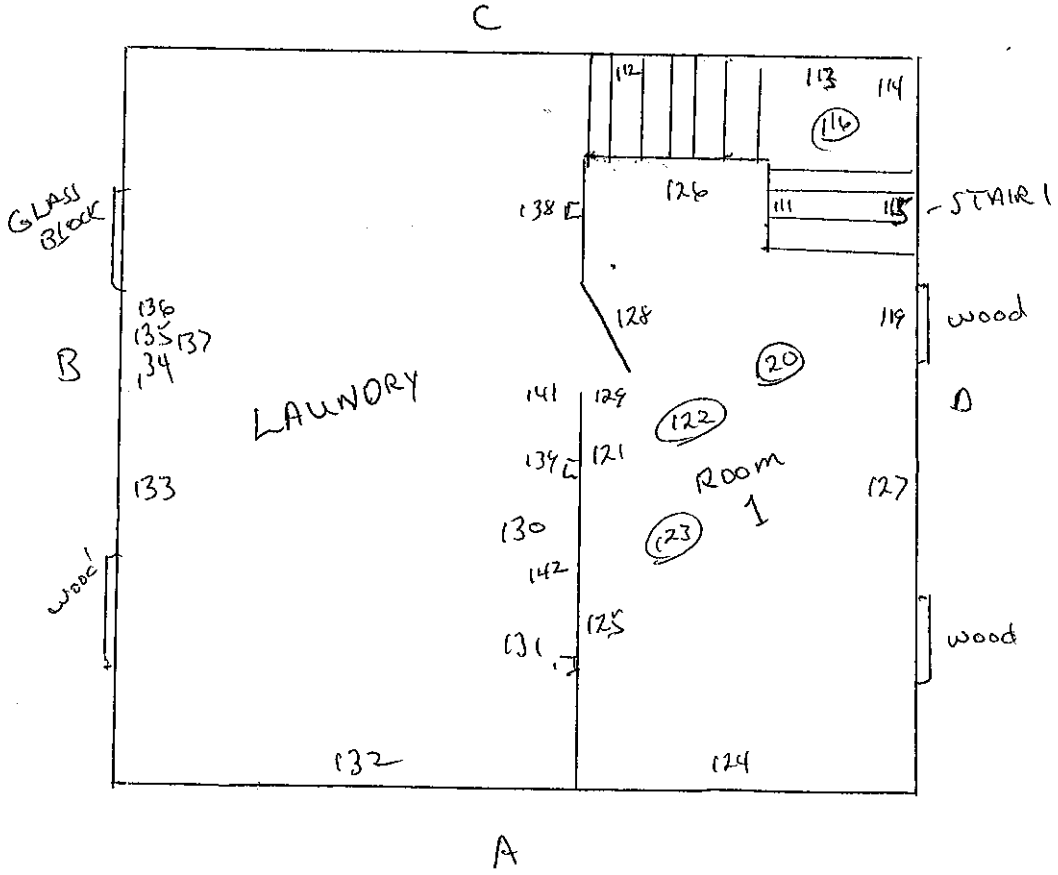


831 Carroll Ave
St. Paul MN



BASEMENT LEVEL
831 CARROLL AVENUE
ST. PAUL, MN
SKETCH NOT TO SCALE
DRAWN BY: ANDREW MYERS
MIDWEST ENVIRONMENTAL
CONSULTING
DATE: 01/21/12

N



St. Croix Environmental
831 Carroll Avenue
St. Paul MN

Site: St. Croix Environmental - 831 Carroll Ave, St. Paul MN
Date: Jan. 22, 2012
XRF: XLp 306A, Serial #22554

| Site | XRF | Date/Time | Floor | Room | Rm # | Side | Component | Substrate | Condition | Color | Results | PbC | PbL | PbK | Duration | Depth | Insp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 1/22/2012 13:49 | | | | | | | | | | 1.58 | 0.25 | 0.01 | 171.28 | | AM |
| | | | | | | | calibrate | | | | POS | 1 | 1 | < LOD | 20.95 | 1.08 | AM |
| 831 Carroll Ave | 2 | 1/22/2012 13:52 | | | | | calibrate | | | | POS | 1 | 1 | < LOD | 20.96 | 1.09 | AM |
| 831 Carroll Ave | 3 | 1/22/2012 13:54 | | | | | calibrate | | | | POS | 1 | 1 | < LOD | 21.08 | 1.09 | AM |
| 831 Carroll Ave | 4 | 1/22/2012 13:56 | | | | | | | | | | | | | | | |
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| 831 Carroll Ave | 6 | 1/22/2012 13:57 | 1 | PORCH | | A | DOOR jamb | WOOD | POOR | BROWN | Neg | 0.6 | 0.6 | < LOD | 1.16 | 1.51 | AM |
| 831 Carroll Ave | 7 | 1/22/2012 13:57 | 1 | PORCH | | A | Door | WOOD | POOR | BROWN | Neg | 0.5 | 0.5 | < LOD | 2.18 | 1.69 | AM |
| 831 Carroll Ave | 8 | 1/22/2012 13:58 | 1 | PORCH | | C | Door | WOOD | POOR | BROWN | Neg | 0.6 | 0.6 | < LOD | 2.3 | 1.69 | AM |
| 831 Carroll Ave | 9 | 1/22/2012 13:58 | 1 | PORCH | | A | DOOR casing | WOOD | POOR | BROWN | Neg | 0.7 | 0.7 | < LOD | 2.44 | 1.67 | AM |
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| 831 Carroll Ave | 16 | 1/22/2012 14:02 | 1 | PORCH | | B | TRIM | WOOD | POOR | BROWN | POS | 30.9 | 10.1 | 30.9 | 2.45 | 3.85 | AM |
| 831 Carroll Ave | 17 | 1/22/2012 14:02 | 1 | PORCH | | | CEILING | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.02 | 1 | AM |
| 831 Carroll Ave | 18 | 1/22/2012 14:03 | 1 | PORCH | | | CEILING | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
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| 831 Carroll Ave | 21 | 1/22/2012 14:04 | 1 | PORCH | | B | WALL | WOOD | POOR | YELLOW | POS | 1.3 | 1.3 | < LOD | 4.61 | 3.66 | AM |
| | | | | | | C | WALL | WOOD | POOR | YELLOW | Null | 0.9 | 0.9 | < LOD | 1.58 | 3.16 | AM |
| 831 Carroll Ave | 22 | 1/22/2012 14:05 | 1 | PORCH | | C | WALL | WOOD | POOR | YELLOW | POS | 1.1 | 1.1 | 0.8 | 20.52 | 3.51 | AM |
| 831 Carroll Ave | 23 | 1/22/2012 14:06 | 1 | PORCH | | D | WALL | WOOD | POOR | YELLOW | Neg | 0.9 | 0.9 | 0.6 | 18.27 | 3.17 | AM |
| 831 Carroll Ave | 24 | 1/22/2012 14:08 | 1 | PORCH | | A | DOOR | METAL | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.6 | 1 | AM |
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| 831 Carroll Ave | 29 | 1/22/2012 14:12 | 1 | ENTRY | | B | WALL | PLASTER | POOR | GREY | Neg | < LOD | < LOD | < LOD | 2.3 | 2.79 | AM |
| 831 Carroll Ave | 30 | 1/22/2012 14:12 | 1 | ENTRY | | C | WALL | PLASTER | POOR | GREY | Neg | < LOD | < LOD | < LOD | 2.88 | 4.1 | AM |
| 831 Carroll Ave | 31 | 1/22/2012 14:13 | 1 | ENTRY | | D | WALL | PLASTER | POOR | GREY | Neg | < LOD | < LOD | < LOD | 2.44 | 2 | AM |
| 831 Carroll Ave | 32 | 1/22/2012 14:13 | 1 | ENTRY | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 4.47 | 10 | AM |
| 831 Carroll Ave | 33 | 1/22/2012 14:14 | 1 | LIVING ROOM | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 3.01 | 2.11 | AM |
| 831 Carroll Ave | 34 | 1/22/2012 14:14 | 1 | LIVING ROOM | | A | WALL | PLASTER | FAIR | GREY | Neg | < LOD | < LOD | < LOD | 2.58 | 3.42 | AM |
| 831 Carroll Ave | 35 | 1/22/2012 14:15 | 1 | LIVING ROOM | | B | WALL | PLASTER | FAIR | GREY | Neg | < LOD | 0.5 | < LOD | 3.31 | 10 | AM |
| 831 Carroll Ave | 36 | 1/22/2012 14:16 | 1 | LIVING ROOM | | | | | | | | | | | | | |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF # | Date/time | Floor | Room | Rm# | Side | Component | Substrate | Condition | Color | Results | PbC | Pb1 | PbK | Duration | Depth | Insp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 37 | 1/22/2012 14:16 | 1 | LIVING ROOM | | C | WALL | PLASTER | FAIR | GREY | Neg | 0.7 | 0.7 | < LOD | 3.46 | 6.77 | AM |
| 831 Carroll Ave | 38 | 1/22/2012 14:16 | 1 | LIVING ROOM | | D | WALL | PLASTER | FAIR | GREY | Neg | 0.5 | 0.5 | < LOD | 3.17 | 4.33 | AM |
| 831 Carroll Ave | 39 | 1/22/2012 14:17 | 1 | LIVING ROOM | | D | BASEBOARD | WOOD | POOR | WHITE | Neg | 0.28 | 0.28 | < LOD | 2.15 | 2.16 | AM |
| 831 Carroll Ave | 40 | 1/22/2012 14:17 | 1 | LIVING ROOM | | A | WINDOW CASING | WOOD | POOR | WHITE | Neg | 0.5 | 0.5 | < LOD | 3.16 | 3.67 | AM |
| 831 Carroll Ave | 41 | 1/22/2012 14:18 | 1 | LIVING ROOM | | | FLOOR | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 1.08 | AM |
| 831 Carroll Ave | 42 | 1/22/2012 14:19 | 1 | DINING RM | | | FLOOR | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 1.23 | AM |
| 831 Carroll Ave | 43 | 1/22/2012 14:20 | 1 | DINING RM | | C | DOOR | WOOD | POOR | WHITE | POS | 2 | 0.5 | 2 | 4.33 | 6.85 | AM |
| 831 Carroll Ave | 44 | 1/22/2012 14:21 | 1 | DINING RM | | C | DOOR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 2.74 | AM |
| 831 Carroll Ave | 45 | 1/22/2012 14:21 | 1 | DINING RM | | C | DOOR jamb | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 2.98 | AM |
| 831 Carroll Ave | 46 | 1/22/2012 14:21 | 1 | DINING RM | | C | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 3.86 | AM |
| 831 Carroll Ave | 47 | 1/22/2012 14:22 | 1 | DINING RM | | C | VENT | METAL | POOR | WHITE | Neg | 0.4 | 0.4 | < LOD | 2.16 | 2.42 | AM |
| 831 Carroll Ave | 48 | 1/22/2012 14:22 | 1 | DINING RM | | D | WINDOW CASING | WOOD | POOR | WHITE | Neg | 0.25 | 0.25 | < LOD | 2.3 | 2.17 | AM |
| 831 Carroll Ave | 49 | 1/22/2012 14:23 | 1 | DINING RM | | D | WINDOW SASH | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 1.59 | 1 | AM |
| 831 Carroll Ave | 50 | 1/22/2012 14:23 | 1 | DINING RM | | D | WINDOW TROUGH | WOOD | POOR | WHITE | POS | 30.8 | 10.1 | 30.8 | 1.44 | 3.39 | AM |
| 831 Carroll Ave | 51 | 1/22/2012 14:24 | 1 | DINING RM | | B | DOOR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1.92 | AM |
| 831 Carroll Ave | 52 | 1/22/2012 14:25 | 1 | DINING RM | | A | MOLDING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1.08 | AM |
| 831 Carroll Ave | 53 | 1/22/2012 14:26 | 1 | DINING RM | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.45 | 1 | AM |
| 831 Carroll Ave | 54 | 1/22/2012 14:26 | 1 | DINING RM | | A | WALL | PLASTER | POOR | PINK | Neg | < LOD | < LOD | < LOD | 4.75 | 10 | AM |
| 831 Carroll Ave | 55 | 1/22/2012 14:27 | 1 | DINING RM | | B | WALL | PLASTER | POOR | PINK | Neg | 0.5 | 0.5 | < LOD | 3.17 | 4.49 | AM |
| 831 Carroll Ave | 56 | 1/22/2012 14:27 | 1 | DINING RM | | C | WALL | PLASTER | POOR | PINK | Neg | < LOD | < LOD | < LOD | 3.88 | 10 | AM |
| 831 Carroll Ave | 57 | 1/22/2012 14:28 | 1 | DINING RM | | D | WALL | PLASTER | POOR | PINK | Neg | < LOD | < LOD | < LOD | 2.45 | 4.1 | AM |
| 831 Carroll Ave | 58 | 1/22/2012 14:29 | 1 | DEN | | A | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.61 | 1 | AM |
| 831 Carroll Ave | 59 | 1/22/2012 14:29 | 1 | DEN | | B | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.31 | 1 | AM |
| 831 Carroll Ave | 60 | 1/22/2012 14:30 | 1 | DEN | | C | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.31 | 1 | AM |
| 831 Carroll Ave | 61 | 1/22/2012 14:30 | 1 | DEN | | D | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.88 | 1 | AM |
| 831 Carroll Ave | 62 | 1/22/2012 14:31 | 1 | DEN | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.58 | 3.73 | AM |
| 831 Carroll Ave | 63 | 1/22/2012 14:31 | 1 | DEN | | D | DOOR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 64 | 1/22/2012 14:32 | 1 | DEN | | D | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.31 | 1 | AM |
| 831 Carroll Ave | 65 | 1/22/2012 14:32 | 1 | DEN | | B | WINDOW CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 66 | 1/22/2012 14:33 | 1 | DEN | | B | WINDOW SASH | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 67 | 1/22/2012 14:33 | 1 | DEN | | B | WINDOW TROUGH | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.02 | 1 | AM |
| 831 Carroll Ave | 68 | 1/22/2012 14:34 | 1 | DEN | | A | CLOSET DR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.03 | 1 | AM |
| 831 Carroll Ave | 69 | 1/22/2012 14:35 | 1 | DEN | | A | CLOSET DR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 70 | 1/22/2012 14:35 | 1 | DEN | | A | CLOSET SHELF | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 71 | 1/22/2012 14:36 | 1 | DEN | | A | Clst Shelf Support | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 3.18 | AM |
| 831 Carroll Ave | 72 | 1/22/2012 14:37 | 1 | DEN | | A | CLOSET BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 1.58 | 1.91 | AM |
| 831 Carroll Ave | 73 | 1/22/2012 14:37 | 1 | DEN | | A | CLOSET WALL | PLASTER | POOR | WHITE | POS | 6.5 | 9.1 | 6.5 | 1.73 | 4.77 | AM |
| 831 Carroll Ave | 74 | 1/22/2012 14:38 | 1 | KITCHEN | | A | Wall/chimney | PLASTER | INTACT | BLUE | POS | 14.9 | < LOD | 14.9 | 1.72 | 10 | AM |
| 831 Carroll Ave | 75 | 1/22/2012 14:39 | 1 | KITCHEN | | B | WALL | PLASTER | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.44 | 1 | AM |
| 831 Carroll Ave | 76 | 1/22/2012 14:39 | 1 | KITCHEN | | B | WALL | PLASTER | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.74 | 1 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF # | Date/Time | Floor | Room | Rm # | Side | Component | Substrate | Condition | Color | Results | PbC | PbT | PbK | Duration | Depth | Insp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 77 | 1/22/2012 14:41 | 1 | KITCHEN | | C | WALL | PLASTER | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.45 | 1 | AM |
| 831 Carroll Ave | 78 | 1/22/2012 14:41 | 1 | KITCHEN | | D | WALL | PLASTER | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.44 | 1 | AM |
| 831 Carroll Ave | 79 | 1/22/2012 14:42 | 1 | KITCHEN | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.17 | 4.07 | AM |
| 831 Carroll Ave | 80 | 1/22/2012 14:42 | 1 | KITCHEN | | | CEILING | PLASTER | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 1.58 | 1 | AM |
| 831 Carroll Ave | 81 | 1/22/2012 14:43 | 1 | KITCHEN | | C | DOOR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 1.44 | 6.15 | AM |
| 831 Carroll Ave | 82 | 1/22/2012 14:43 | 1 | KITCHEN | | C | DOOR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.31 | 3.18 | AM |
| 831 Carroll Ave | 83 | 1/22/2012 14:44 | 1 | KITCHEN | | A | Door | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.17 | 2.46 | AM |
| 831 Carroll Ave | 84 | 1/22/2012 14:44 | 1 | KITCHEN | | A | DOOR CASING | WOOD | POOR | WHITE | POS | 3.2 | < LOD | 3.2 | 3.3 | 10 | AM |
| 831 Carroll Ave | 85 | 1/22/2012 14:45 | 1 | KITCHEN | | A | BASEBOARD | WOOD | POOR | WHITE | POS | 3.4 | < LOD | 3.4 | 4.01 | 10 | AM |
| 831 Carroll Ave | 86 | 1/22/2012 14:45 | 1 | KITCHEN | | C | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 87 | 1/22/2012 14:45 | 1 | KITCHEN | | D | WINDOW CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.01 | 1.54 | AM |
| 831 Carroll Ave | 88 | 1/22/2012 14:46 | 1 | KITCHEN | | B | WINDOW CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.16 | 2.88 | AM |
| 831 Carroll Ave | 89 | 1/22/2012 14:47 | 1 | KITCHEN | | B | WINDOW SASH | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 90 | 1/22/2012 14:47 | 1 | KITCHEN | | B | WINDOW SILL | WOOD | POOR | WHITE | Neg | 0.28 | 0.28 | < LOD | 4.6 | 7.25 | AM |
| 831 Carroll Ave | 91 | 1/22/2012 14:48 | 1 | KITCHEN | | B | WINDOW TROUGH | WOOD | POOR | BROWN | POS | 10.7 | 10.1 | 10.7 | 1.73 | 2.78 | AM |
| 831 Carroll Ave | 92 | 1/22/2012 14:49 | 1 | KITCHEN | | A | CABINET | WOOD | INTACT | VARNISH | Neg | < LOD | < LOD | < LOD | 2.15 | 1.65 | AM |
| 831 Carroll Ave | 93 | 1/22/2012 14:49 | 1 | KITCHEN | | | FLOOR | VINYL | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.31 | 1 | AM |
| 831 Carroll Ave | 94 | 1/22/2012 14:51 | 0 | STAIR | | A | DOOR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.89 | 1 | AM |
| 831 Carroll Ave | 95 | 1/22/2012 14:52 | 0 | STAIR | | A | DOOR CASING | WOOD | POOR | WHITE | POS | 2.1 | 1 | 2.1 | 4.3 | 6.15 | AM |
| 831 Carroll Ave | 96 | 1/22/2012 14:52 | 0 | STAIR | | B | CHAIR RAIL | WOOD | POOR | WHITE | POS | 9.9 | 6.1 | 9.9 | 1.73 | 10 | AM |
| 831 Carroll Ave | 97 | 1/22/2012 14:53 | 0 | STAIR | | B | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.29 | 3.23 | AM |
| 831 Carroll Ave | 98 | 1/22/2012 14:53 | 0 | STAIR | | B | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.44 | 3.07 | AM |
| 831 Carroll Ave | 99 | 1/22/2012 14:54 | 0 | STAIR | | C | DOOR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 100 | 1/22/2012 14:54 | 0 | STAIR | | C | DOOR CASING | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 101 | 1/22/2012 14:55 | 0 | STAIR | | C | DOOR JAMB | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 102 | 1/22/2012 14:55 | 0 | STAIR | | C | DOOR JAMB | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 2.06 | AM |
| 831 Carroll Ave | 103 | 1/22/2012 14:56 | 0 | STAIR | | C | DOOR THRESHOLD | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 104 | 1/22/2012 14:57 | 0 | STAIR | | C | TREAD | CONCRETE | POOR | RED | Neg | < LOD | < LOD | < LOD | 2.44 | 1.14 | AM |
| 831 Carroll Ave | 105 | 1/22/2012 14:57 | 0 | STAIR | | C | WALL | WOOD | POOR | RED | Neg | < LOD | < LOD | < LOD | 3.02 | 1 | AM |
| 831 Carroll Ave | 106 | 1/22/2012 14:58 | 0 | STAIR | | D | WALL | WOOD | POOR | RED | Neg | < LOD | < LOD | < LOD | 2.15 | 1.09 | AM |
| 831 Carroll Ave | 107 | 1/22/2012 14:58 | 0 | STAIR | | B | CABINET | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.31 | 7.45 | AM |
| 831 Carroll Ave | 108 | 1/22/2012 14:58 | 0 | STAIR | | B | TRIM | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.3 | 1 | AM |
| 831 Carroll Ave | 109 | 1/22/2012 14:59 | 0 | STAIR | | B | WALL | CONCRETE | POOR | RED | Neg | < LOD | < LOD | < LOD | 3.32 | 1.64 | AM |
| 831 Carroll Ave | 110 | 1/22/2012 15:00 | 0 | STAIR | | A | WALL | PLASTER | POOR | WHITE | POS | 2.7 | < LOD | 2.7 | 3.59 | 1 | AM |
| 831 Carroll Ave | 111 | 1/22/2012 15:00 | 0 | STAIR | | B | WALL | PLASTER | POOR | WHITE | POS | 12.9 | 7.1 | 12.9 | 1.58 | 10 | AM |
| 831 Carroll Ave | 112 | 1/22/2012 15:00 | 0 | STAIR | | C | WALL | PLASTER | POOR | WHITE | Null | < LOD | < LOD | < LOD | 0.57 | 1 | AM |
| 831 Carroll Ave | 113 | 1/22/2012 15:00 | 0 | STAIR | | C | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.29 | 1 | AM |
| 831 Carroll Ave | 114 | 1/22/2012 15:01 | 0 | STAIR | | D | WALL | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 115 | 1/22/2012 15:01 | 0 | STAIR | | D | WALL | PLASTER | POOR | WHITE | POS | 14.9 | 5.7 | 14.9 | 1.58 | 10 | AM |
| 831 Carroll Ave | 116 | 1/22/2012 15:01 | 0 | STAIR | | | CEILING | PLASTER | POOR | WHITE | Null | < LOD | < LOD | < LOD | 0.29 | 1 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF# | Date/Time | Floor | Room | Rm# | Side | Component | Substrate | Condition | Color | Results | PbC | PbF | PbK | Duration | Depth | Insp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 117 | 1/22/2012 15:02 | 0 | STAIR | | | CEILING | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.31 | 3.36 | AM |
| 831 Carroll Ave | 118 | 1/22/2012 15:02 | 0 | STAIR | | | CEILING | PLASTER | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.44 | 1.39 | AM |
| 831 Carroll Ave | 119 | 1/22/2012 15:03 | 0 | RM 1 | | D | WINDOW | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.01 | 1.14 | AM |
| 831 Carroll Ave | 120 | 1/22/2012 15:04 | 0 | RM 1 | | | FLOOR | CONCRETE | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.29 | 1.22 | AM |
| 831 Carroll Ave | 121 | 1/22/2012 15:04 | 0 | RM 1 | | B | BOOKCASE | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 122 | 1/22/2012 15:05 | 0 | RM 1 | | | CEILING | WOOD | POOR | BEIGE | Null | < LOD | < LOD | < LOD | 0.57 | 1 | AM |
| 831 Carroll Ave | 123 | 1/22/2012 15:05 | 0 | RM 1 | | | CEILING | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 1.73 | 1.11 | AM |
| 831 Carroll Ave | 124 | 1/22/2012 15:06 | 0 | RM 1 | | A | WALL | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 2.3 | 1.92 | AM |
| 831 Carroll Ave | 125 | 1/22/2012 15:06 | 0 | RM 1 | | B | WALL | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 3.16 | 1 | AM |
| 831 Carroll Ave | 126 | 1/22/2012 15:06 | 0 | RM 1 | | C | WALL | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 127 | 1/22/2012 15:07 | 0 | RM 1 | | D | WALL | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 2.16 | 2.19 | AM |
| 831 Carroll Ave | 128 | 1/22/2012 15:07 | 0 | RM 1 | | B | DOOR | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 2.01 | 1 | AM |
| 831 Carroll Ave | 129 | 1/22/2012 15:08 | 0 | RM 1 | | B | DOOR CASING | WOOD | POOR | varnish | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 130 | 1/22/2012 15:08 | 0 | laundry | | D | WALL | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.01 | 1.16 | AM |
| 831 Carroll Ave | 131 | 1/22/2012 15:09 | 0 | laundry | | D | WALL | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.15 | 1.06 | AM |
| 831 Carroll Ave | 132 | 1/22/2012 15:09 | 0 | laundry | | A | WALL | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.17 | 1.2 | AM |
| 831 Carroll Ave | 133 | 1/22/2012 15:10 | 0 | laundry | | B | WALL | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.01 | 1 | AM |
| 831 Carroll Ave | 134 | 1/22/2012 15:10 | 0 | laundry | | B | CABINET | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.16 | 1.41 | AM |
| 831 Carroll Ave | 135 | 1/22/2012 15:10 | 0 | laundry | | B | CABINET | WOOD | POOR | grey | Neg | 0.17 | 0.17 | < LOD | 2.16 | 1.47 | AM |
| 831 Carroll Ave | 136 | 1/22/2012 15:11 | 0 | laundry | | D | CABINET | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.15 | 1.02 | AM |
| 831 Carroll Ave | 137 | 1/22/2012 15:11 | 0 | laundry | | D | CABINET | WOOD | POOR | grey | Neg | 0.06 | 0.06 | < LOD | 3.16 | 1.07 | AM |
| 831 Carroll Ave | 138 | 1/22/2012 15:11 | 0 | laundry | | D | COLUMN | WOOD | POOR | grey | Neg | < LOD | < LOD | < LOD | 2.01 | 1.08 | AM |
| 831 Carroll Ave | 139 | 1/22/2012 15:12 | 0 | laundry | | D | COLUMN | WOOD | POOR | grey | Neg | 0.7 | 0.7 | < LOD | 1.15 | 1.24 | AM |
| 831 Carroll Ave | 140 | 1/22/2012 15:12 | 0 | laundry | | D | COLUMN | WOOD | POOR | GREEN | Neg | 0.6 | 0.6 | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 141 | 1/22/2012 15:16 | 2 | STAIR | | D | DOOR casing | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1.79 | AM |
| 831 Carroll Ave | 142 | 1/22/2012 15:16 | 2 | STAIR | | D | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1.57 | AM |
| 831 Carroll Ave | 143 | 1/22/2012 15:17 | 2 | STAIR | | D | balistrude | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 144 | 1/22/2012 15:18 | 2 | STAIR | | B | WINDOW casing | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 145 | 1/22/2012 15:18 | 2 | STAIR | | B | WINDOW sash | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1.85 | AM |
| 831 Carroll Ave | 146 | 1/22/2012 15:19 | 2 | STAIR | | | FLOOR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 147 | 1/22/2012 15:19 | 2 | STAIR | | A | WALL | DRYWALL | POOR | orange | Neg | < LOD | < LOD | < LOD | 2.73 | 2.75 | AM |
| 831 Carroll Ave | 148 | 1/22/2012 15:20 | 2 | STAIR | | B | WALL | DRYWALL | POOR | orange | Neg | < LOD | < LOD | < LOD | 2.73 | 1 | AM |
| 831 Carroll Ave | 149 | 1/22/2012 15:20 | 2 | STAIR | | D | WALL | DRYWALL | POOR | orange | Neg | < LOD | < LOD | < LOD | 2.44 | 1 | AM |
| 831 Carroll Ave | 150 | 1/22/2012 15:21 | 2 | STAIR | | | CEILING | DRYWALL | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 151 | 1/22/2012 15:21 | 2 | HALL | | | CEILING | DRYWALL | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 3.31 | 1 | AM |
| 831 Carroll Ave | 152 | 1/22/2012 15:22 | 2 | HALL | | A | WALL | DRYWALL | INTACT | orange | Neg | < LOD | < LOD | < LOD | 2.73 | 2.11 | AM |
| 831 Carroll Ave | 153 | 1/22/2012 15:23 | 2 | HALL | | B | WALL | DRYWALL | INTACT | orange | Neg | < LOD | < LOD | < LOD | 3.32 | 1.99 | AM |
| 831 Carroll Ave | 154 | 1/22/2012 15:23 | 2 | HALL | | C | WALL | DRYWALL | INTACT | orange | Neg | < LOD | < LOD | < LOD | 2.88 | 1 | AM |
| 831 Carroll Ave | 155 | 1/22/2012 15:24 | 2 | HALL | | D | WALL | DRYWALL | INTACT | orange | Neg | < LOD | < LOD | < LOD | 3.31 | 1 | AM |
| 831 Carroll Ave | 156 | 1/22/2012 15:24 | 2 | HALL | | D | DOOR | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF # | Date/Time | Floor | Room # | Side | Component | Substrate | Condition | Color | Results | PbC | PbL | PbK | Duration | Depth | Insp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 157 | 1/22/2012 15:24 | 2 | HALL | D | DOOR jamb | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 158 | 1/22/2012 15:25 | 2 | HALL | B | WINDOW casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.01 | 1 | AM |
| 831 Carroll Ave | 159 | 1/22/2012 15:26 | 2 | HALL | B | WINDOW sash | WOOD | INTACT | WHITE | Neg | 0.5 | 0.5 | < LOD | 3.17 | 6.67 | AM |
| 831 Carroll Ave | 160 | 1/22/2012 15:26 | 2 | HALL | B | WINDOW sash | WOOD | INTACT | WHITE | Neg | 0.8 | 0.8 | 1 | 6.19 | 4.34 | AM |
| 831 Carroll Ave | 161 | 1/22/2012 15:26 | 2 | HALL | B | WINDOW sash | WOOD | INTACT | WHITE | Neg | 0.7 | 0.7 | 1.1 | 4.19 | 3.29 | AM |
| 831 Carroll Ave | 162 | 1/22/2012 15:27 | 2 | HALL | B | WINDOW sash | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.45 | 3.11 | AM |
| 831 Carroll Ave | 163 | 1/22/2012 15:27 | 2 | HALL | B | WINDOW sash | WOOD | INTACT | WHITE | Null | < LOD | < LOD | < LOD | 1.01 | 10 | AM |
| 831 Carroll Ave | 164 | 1/22/2012 15:27 | 2 | HALL | B | BASEBOARD | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 165 | 1/22/2012 15:28 | 2 | HALL | B | WINDOW trough | WOOD | POOR | BROWN | POS | 21.1 | 10.1 | 21.1 | 1.44 | 2.84 | AM |
| 831 Carroll Ave | 166 | 1/22/2012 15:29 | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 6.17 | 1.05 | AM |
| 831 Carroll Ave | 167 | 1/22/2012 15:30 | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 6.19 | 1.08 | AM |
| 831 Carroll Ave | 168 | 1/22/2012 15:32 | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 18.87 | 1.09 | AM |
| | 169 | 1/23/2012 13:02 | | | | | | | | | 1.51 | 0.33 | 0.01 | 177.26 | | AM |
| 831 Carroll Ave | 170 | 1/23/2012 13:04 | | | | calibrate | | | | POS | 1 | 1 | 0.6 | 20.33 | 1.1 | AM |
| 831 Carroll Ave | 171 | 1/23/2012 13:06 | | | | calibrate | | | | POS | 1 | 1 | 0.5 | 20.53 | 1.1 | AM |
| 831 Carroll Ave | 172 | 1/23/2012 13:07 | | | | calibrate | | | | POS | 1.1 | 1.1 | < LOD | 7.79 | 1.14 | AM |
| 831 Carroll Ave | 173 | 1/23/2012 13:07 | 2 | BATHROOM | D | DOOR | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.02 | 1 | AM |
| 831 Carroll Ave | 174 | 1/23/2012 13:08 | 2 | BATHROOM | D | DOOR casing | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.01 | 1.05 | AM |
| 831 Carroll Ave | 175 | 1/23/2012 13:09 | 2 | BATHROOM | C | Cabinet Door | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 176 | 1/23/2012 13:09 | 2 | BATHROOM | C | CABINET | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.16 | 5.55 | AM |
| 831 Carroll Ave | 177 | 1/23/2012 13:10 | 2 | BATHROOM | D | CABINET | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 178 | 1/23/2012 13:10 | 2 | BATHROOM | D | BASEBOARD | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.16 | 3.16 | AM |
| 831 Carroll Ave | 179 | 1/23/2012 13:11 | 2 | BATHROOM | B | WINDOW casing | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 180 | 1/23/2012 13:11 | 2 | BATHROOM | B | WINDOW sash | WOOD | POOR | BEIGE | Neg | < LOD | < LOD | < LOD | 2.31 | 4.18 | AM |
| 831 Carroll Ave | 181 | 1/23/2012 13:12 | 2 | BATHROOM | B | WINDOW trough | WOOD | POOR | BROWN | POS | 15.4 | 10.1 | 15.4 | 1.44 | 3.36 | AM |
| 831 Carroll Ave | 182 | 1/23/2012 13:12 | 2 | BATHROOM | A | WALL | DRYWALL | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 3.86 | 1 | AM |
| 831 Carroll Ave | 183 | 1/23/2012 13:13 | 2 | BATHROOM | D | WALL | DRYWALL | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.72 | 1.23 | AM |
| 831 Carroll Ave | 184 | 1/23/2012 13:13 | 2 | BATHROOM | B | WALL | DRYWALL | POOR | TAN | Null | < LOD | < LOD | < LOD | 1.43 | 1 | AM |
| 831 Carroll Ave | 185 | 1/23/2012 13:15 | 2 | BATHROOM | B | WALL | DRYWALL | POOR | TAN | POS | 1.5 | < LOD | 1.5 | 16.05 | 1.52 | AM |
| 831 Carroll Ave | 186 | 1/23/2012 13:15 | 2 | BATHROOM | C | WALL | DRYWALL | INTACT | TAN | POS | 3.2 | < LOD | 3.2 | 2.29 | 1 | AM |
| 831 Carroll Ave | 187 | 1/23/2012 13:16 | 2 | BATHROOM | | CEILING | DRYWALL | INTACT | TAN | POS | 2.7 | < LOD | 2.7 | 3.15 | 1 | AM |
| 831 Carroll Ave | 188 | 1/23/2012 13:16 | 2 | BATHROOM | | FLOOR | vinyl | INTACT | BEIGE | Neg | < LOD | < LOD | < LOD | 2.72 | 5.36 | AM |
| 831 Carroll Ave | 189 | 1/23/2012 13:17 | 2 | BATHROOM | A | RADIATOR | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.72 | 1 | AM |
| 831 Carroll Ave | 190 | 1/23/2012 13:18 | 2 | BEDROOM 1 | C | DOOR | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.02 | 1 | AM |
| 831 Carroll Ave | 191 | 1/23/2012 13:19 | 2 | BEDROOM 1 | C | DOOR casing | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 192 | 1/23/2012 13:19 | 2 | BEDROOM 1 | A | BASEBOARD | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.3 | 1 | AM |
| 831 Carroll Ave | 193 | 1/23/2012 13:20 | 2 | BEDROOM 1 | A | WINDOW casing | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.01 | 1 | AM |
| 831 Carroll Ave | 194 | 1/23/2012 13:20 | 2 | BEDROOM 1 | A | WINDOW sash | WOOD | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.14 | 1 | AM |
| 831 Carroll Ave | 195 | 1/23/2012 13:21 | 2 | BEDROOM 1 | A | WINDOW trough | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 2.01 | AM |
| 831 Carroll Ave | 196 | 1/23/2012 13:21 | 2 | BEDROOM 1 | A | WINDOW trough | WOOD | POOR | BROWN | Null | < LOD | < LOD | < LOD | 0.43 | 1 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF # | Date/Time | Floor | Room | Rm # | Side | Component | Substrate | Condition | Color | Results | PbC | PbL | PbK | Duration | Depth | Insp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 197 | 1/23/2012 13:21 | 2 | BEDROOM 1 | | A | WINDOW trough | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.3 | 1.44 | AM |
| 831 Carroll Ave | 198 | 1/23/2012 13:22 | 2 | BEDROOM 1 | | A | Wndw Sash Ext. | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 1.88 | AM |
| 831 Carroll Ave | 199 | 1/23/2012 13:23 | 2 | BEDROOM 1 | | B | CLOSET dr | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 3.15 | 1 | AM |
| 831 Carroll Ave | 200 | 1/23/2012 13:23 | 2 | BEDROOM 1 | | B | CLOSET dr casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 4.15 | 1 | AM |
| 831 Carroll Ave | 201 | 1/23/2012 13:24 | 2 | BEDROOM 1 | | B | CLOSET wall | DRYWALL | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.59 | 1.1 | AM |
| 831 Carroll Ave | 202 | 1/23/2012 13:25 | 2 | BEDROOM 1 | | A | WALL | DRYWALL | POOR | purple | Neg | < LOD | < LOD | < LOD | 3 | 1 | AM |
| 831 Carroll Ave | 203 | 1/23/2012 13:25 | 2 | BEDROOM 1 | | B | WALL | DRYWALL | POOR | purple | Neg | < LOD | < LOD | < LOD | 3.16 | 1 | AM |
| 831 Carroll Ave | 204 | 1/23/2012 13:25 | 2 | BEDROOM 1 | | C | WALL | DRYWALL | POOR | purple | Neg | < LOD | < LOD | < LOD | 3.01 | 1.48 | AM |
| 831 Carroll Ave | 205 | 1/23/2012 13:26 | 2 | BEDROOM 1 | | D | WALL | DRYWALL | POOR | purple | Neg | < LOD | < LOD | < LOD | 2.87 | 1.86 | AM |
| 831 Carroll Ave | 206 | 1/23/2012 13:27 | 2 | BEDROOM 1 | | | Ceiling Sup. Beam | DRYWALL | INTACT | purple | Neg | < LOD | < LOD | < LOD | 1.87 | 1 | AM |
| 831 Carroll Ave | 207 | 1/23/2012 13:27 | 2 | BEDROOM 1 | | | CEILING | DRYWALL | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 1.87 | 1.15 | AM |
| 831 Carroll Ave | 208 | 1/23/2012 13:28 | 2 | BEDROOM 2 | | | CEILING | DRYWALL | INTACT | WHITE | Null | < LOD | < LOD | < LOD | 2.45 | 1.89 | AM |
| 831 Carroll Ave | 209 | 1/23/2012 13:28 | 2 | BEDROOM 2 | | B | DOOR | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.14 | 2.26 | AM |
| 831 Carroll Ave | 210 | 1/23/2012 13:29 | 2 | BEDROOM 2 | | B | DOOR casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 3.16 | 1.06 | AM |
| 831 Carroll Ave | 211 | 1/23/2012 13:29 | 2 | BEDROOM 2 | | B | BASEBOARD | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 212 | 1/23/2012 13:30 | 2 | BEDROOM 2 | | D | WINDOW casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 213 | 1/23/2012 13:30 | 2 | BEDROOM 2 | | D | WINDOW sash | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 214 | 1/23/2012 13:31 | 2 | BEDROOM 2 | | D | WINDOW trough | WOOD | POOR | BROWN | POS | 21.1 | < LOD | 21.1 | 1.29 | 3.88 | AM |
| 831 Carroll Ave | 215 | 1/23/2012 13:32 | 2 | BEDROOM 2 | | C | CLOSET dr | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 1.87 | 1 | AM |
| 831 Carroll Ave | 216 | 1/23/2012 13:32 | 2 | BEDROOM 2 | | C | CLOSET dr casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 217 | 1/23/2012 13:33 | 2 | BEDROOM 2 | | C | CLOSET wall | DRYWALL | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.44 | 1.88 | AM |
| 831 Carroll Ave | 218 | 1/23/2012 13:33 | 2 | BEDROOM 2 | | A | WALL | DRYWALL | INTACT | BLUE | Null | < LOD | < LOD | < LOD | 0.57 | 1 | AM |
| 831 Carroll Ave | 219 | 1/23/2012 13:33 | 2 | BEDROOM 2 | | A | WALL | DRYWALL | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.31 | 1 | AM |
| 831 Carroll Ave | 220 | 1/23/2012 13:34 | 2 | BEDROOM 2 | | B | WALL | DRYWALL | INTACT | BLUE | Null | < LOD | < LOD | < LOD | 0.29 | 1 | AM |
| 831 Carroll Ave | 221 | 1/23/2012 13:34 | 2 | BEDROOM 2 | | B | WALL | DRYWALL | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 222 | 1/23/2012 13:34 | 2 | BEDROOM 2 | | C | WALL | DRYWALL | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.31 | 1 | AM |
| 831 Carroll Ave | 223 | 1/23/2012 13:35 | 2 | BEDROOM 2 | | D | WALL | DRYWALL | INTACT | BLUE | Neg | < LOD | < LOD | < LOD | 2.29 | 1 | AM |
| 831 Carroll Ave | 224 | 1/23/2012 13:36 | 2 | BEDROOM 3 | | A | WALL | DRYWALL | INTACT | purple | Neg | < LOD | < LOD | < LOD | 2.29 | 2.15 | AM |
| 831 Carroll Ave | 225 | 1/23/2012 13:36 | 2 | BEDROOM 3 | | B | WALL | DRYWALL | INTACT | purple | Neg | < LOD | < LOD | < LOD | 3.16 | 1 | AM |
| 831 Carroll Ave | 226 | 1/23/2012 13:37 | 2 | BEDROOM 3 | | C | WALL | DRYWALL | INTACT | purple | POS | 3.3 | < LOD | 3.3 | 3.88 | 2.77 | AM |
| 831 Carroll Ave | 227 | 1/23/2012 13:37 | 2 | BEDROOM 3 | | D | WALL | DRYWALL | INTACT | purple | POS | 4.9 | < LOD | 4.9 | 2.3 | 1 | AM |
| 831 Carroll Ave | 228 | 1/23/2012 13:38 | 2 | BEDROOM 3 | | | CEILING | DRYWALL | INTACT | WHITE | Null | < LOD | < LOD | < LOD | 1.87 | 1 | AM |
| 831 Carroll Ave | 229 | 1/23/2012 13:38 | 2 | BEDROOM 3 | | | CEILING | DRYWALL | INTACT | WHITE | POS | 1.7 | < LOD | 1.7 | 4.17 | 1 | AM |
| 831 Carroll Ave | 230 | 1/23/2012 13:38 | 2 | BEDROOM 3 | | | CEILING | DRYWALL | INTACT | WHITE | POS | 2.8 | < LOD | 2.8 | 3.16 | 1.73 | AM |
| 831 Carroll Ave | 231 | 1/23/2012 13:39 | 2 | BEDROOM 3 | | B | DOOR | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 232 | 1/23/2012 13:39 | 2 | BEDROOM 3 | | B | DOOR casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 233 | 1/23/2012 13:40 | 2 | BEDROOM 3 | | C | BASEBOARD | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 3.3 | 1 | AM |
| 831 Carroll Ave | 234 | 1/23/2012 13:40 | 2 | BEDROOM 3 | | D | WINDOW casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 235 | 1/23/2012 13:41 | 2 | BEDROOM 3 | | D | WINDOW sash | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.01 | 1.58 | AM |
| 831 Carroll Ave | 236 | 1/23/2012 13:41 | 2 | BEDROOM 3 | | D | WINDOW trough | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF # | Date/Time | Floor | Room | Rm # | Side | Component | Substrate | Condition | Color | Results | PbC | PbL | PbK | Duration | Depth | Insp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 237 | 1/23/2012 13:42 | 2 | BEDROOM 3 | | D | WINDOW trough | WOOD | POOR | BROWN | POS | 8.7 | 6.1 | 8.7 | 1.44 | 2.36 | AM |
| 831 Carroll Ave | 238 | 1/23/2012 13:42 | 2 | BEDROOM 3 | | A | vent | METAL | POOR | WHITE | Neg | < LOD | < LOD | < LOD | 2.01 | 1 | AM |
| 831 Carroll Ave | 239 | 1/23/2012 13:43 | 2 | BEDROOM 3 | | A | Clst Door Casing | WOOD | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 1.59 | 1 | AM |
| 831 Carroll Ave | 240 | 1/23/2012 13:43 | 2 | BEDROOM 3 | | A | CLOSET wall | DRYWALL | INTACT | WHITE | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 241 | 1/23/2012 13:45 | | OUTSIDE | | D | WINDOWsill | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.29 | 2.02 | AM |
| 831 Carroll Ave | 242 | 1/23/2012 13:45 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.29 | 2.22 | AM |
| 831 Carroll Ave | 243 | 1/23/2012 13:48 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Null | 1.1 | 0.28 | 1.1 | 35.58 | 10 | AM |
| 831 Carroll Ave | 244 | 1/23/2012 13:48 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Null | < LOD | < LOD | < LOD | 0.86 | 10 | AM |
| 831 Carroll Ave | 245 | 1/23/2012 13:49 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Null | 1 | 0.23 | 1 | 8.31 | 10 | AM |
| 831 Carroll Ave | 246 | 1/23/2012 13:50 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Null | 1.2 | 0.26 | 1.2 | 13.3 | 10 | AM |
| 831 Carroll Ave | 247 | 1/23/2012 13:51 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | POS | 1.6 | 1.6 | 1.7 | 4.32 | 7.06 | AM |
| 831 Carroll Ave | 248 | 1/23/2012 13:51 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 1.29 | 10 | AM |
| 831 Carroll Ave | 249 | 1/23/2012 13:52 | | OUTSIDE | | D | WINDOW casing | METAL | INTACT | BROWN | Null | < LOD | < LOD | < LOD | 2.15 | 10 | AM |
| 831 Carroll Ave | 250 | 1/23/2012 13:52 | | OUTSIDE | | A | WINDOW casing | METAL | INTACT | BROWN | POS | 1.5 | 1.5 | 1.1 | 3.46 | 7.85 | AM |
| 831 Carroll Ave | 251 | 1/23/2012 13:53 | | OUTSIDE | | C | DOOR | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 252 | 1/23/2012 13:53 | | OUTSIDE | | C | DOOR casing | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.29 | 1 | AM |
| 831 Carroll Ave | 253 | 1/23/2012 13:54 | | OUTSIDE | | C | DOOR jamb | WOOD | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.3 | 4.42 | AM |
| 831 Carroll Ave | 254 | 1/23/2012 13:54 | | OUTSIDE | | C | drip board | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.31 | 1 | AM |
| 831 Carroll Ave | 255 | 1/23/2012 13:55 | | OUTSIDE | | C | Fascia | METAL | INTACT | BROWN | POS | 25.6 | < LOD | 25.6 | 2.59 | 10 | AM |
| 831 Carroll Ave | 256 | 1/23/2012 13:55 | | OUTSIDE | | C | soffit | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.87 | 3.54 | AM |
| 831 Carroll Ave | 257 | 1/23/2012 13:56 | | OUTSIDE | | D | soffit | METAL | INTACT | BROWN | Neg | < LOD | < LOD | < LOD | 2.44 | 1.81 | AM |
| 831 Carroll Ave | 258 | 1/23/2012 13:56 | | OUTSIDE | | D | Fascia | WOOD | POOR | YELLOW | POS | 32.6 | < LOD | 32.6 | 1.43 | 9.55 | AM |
| 831 Carroll Ave | 259 | 1/23/2012 13:57 | | OUTSIDE | | C | siding | WOOD | POOR | YELLOW | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 260 | 1/23/2012 13:57 | | OUTSIDE | | B | siding | WOOD | POOR | YELLOW | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 261 | 1/23/2012 13:57 | | OUTSIDE | | D | siding | WOOD | POOR | YELLOW | POS | 25.8 | < LOD | 25.8 | 1.44 | 9.06 | AM |
| 831 Carroll Ave | 262 | 1/23/2012 13:58 | | OUTSIDE | | C | siding | WOOD | POOR | YELLOW | POS | 27 | < LOD | 27 | 1.44 | 9.99 | AM |
| 831 Carroll Ave | 263 | 1/23/2012 13:58 | | OUTSIDE | | B | siding | WOOD | POOR | YELLOW | POS | 18.9 | < LOD | 18.9 | 1.01 | 10 | AM |
| 831 Carroll Ave | 264 | 1/23/2012 13:58 | | OUTSIDE | | A | siding | WOOD | POOR | YELLOW | Null | 1 | 1 | < LOD | 3.02 | 4.4 | AM |
| 831 Carroll Ave | 265 | 1/23/2012 13:59 | | OUTSIDE | | A | siding | WOOD | POOR | YELLOW | POS | 2 | 2 | 1.7 | 4.31 | 6.62 | AM |
| 831 Carroll Ave | 266 | 1/23/2012 14:00 | | OUTSIDE | | A | Fascia | METAL | INTACT | BROWN | POS | 5.6 | < LOD | 5.6 | 2.31 | 10 | AM |
| 831 Carroll Ave | 267 | 1/23/2012 14:00 | | OUTSIDE | | A | Fascia | METAL | INTACT | BROWN | POS | 29.9 | < LOD | 29.9 | 1.44 | 10 | AM |
| 831 Carroll Ave | 268 | 1/23/2012 14:01 | | GARAGE | | A | Fascia | METAL | POOR | BROWN | Null | 0.8 | 0.8 | < LOD | 1.72 | 2.17 | AM |
| 831 Carroll Ave | 269 | 1/23/2012 14:02 | | GARAGE | | A | Fascia | METAL | POOR | BROWN | POS | 2.2 | 2.2 | < LOD | 2.15 | 3.23 | AM |
| 831 Carroll Ave | 270 | 1/23/2012 14:02 | | GARAGE | | A | soffit | METAL | POOR | YELLOW | POS | 1.6 | 1.6 | 1.2 | 4.31 | 5.57 | AM |
| 831 Carroll Ave | 271 | 1/23/2012 14:03 | | GARAGE | | A | DOOR | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 272 | 1/23/2012 14:03 | | GARAGE | | A | DOOR | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.16 | 1 | AM |
| 831 Carroll Ave | 273 | 1/23/2012 14:03 | | GARAGE | | B | WINDOW | WOOD | POOR | BROWN | Neg | 0.7 | 0.7 | < LOD | 2.45 | 2.36 | AM |
| 831 Carroll Ave | 274 | 1/23/2012 14:05 | | GARAGE | | B | WINDOW | WOOD | POOR | BROWN | POS | 1.1 | 1.1 | 0.8 | 17.47 | 2.53 | AM |
| 831 Carroll Ave | 275 | 1/23/2012 14:05 | | GARAGE | | C | DOOR casing | WOOD | POOR | BROWN | Neg | < LOD | < LOD | < LOD | 2.15 | 1 | AM |
| 831 Carroll Ave | 276 | 1/23/2012 14:06 | | GARAGE | | C | Door | WOOD | POOR | YELLOW | POS | 1.9 | 1.9 | < LOD | 2.29 | 3.78 | AM |

St. Croix Environmental
831 Carroll Avenue
St. Paul MN

| Site | XRF# | Date/Time | Floor | Room | Rmk | Side | Component | Substrate | Condition | Color | Results | PbC | PbL | PbK | Duration | Depth | Insp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 Carroll Ave | 277 | 1/23/2012 14:06 | | GARAGE | | C | siding | WOOD | POOR | YELLOW | POS | 1.3 | 1.3 | 1 | 8.02 | 6.4 | AM |
| 831 Carroll Ave | 278 | 1/23/2012 14:07 | | GARAGE | | B | siding | WOOD | POOR | YELLOW | POS | 1.6 | 1.7 | 1.6 | 6.05 | 8.08 | AM |
| 831 Carroll Ave | 279 | 1/23/2012 14:08 | | GARAGE | | A | siding | WOOD | POOR | YELLOW | POS | 2.5 | 2.5 | 2.4 | 4.43 | 7.5 | AM |
| 831 Carroll Ave | 280 | 1/23/2012 14:08 | | GARAGE | | D | siding | WOOD | POOR | YELLOW | Neg | < LOD | < LOD | < LOD | 2.44 | 2.92 | AM |
| 831 Carroll Ave | 281 | 1/23/2012 14:11 | | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 5.59 | 1.04 | AM |
| 831 Carroll Ave | 282 | 1/23/2012 14:12 | | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 6.05 | 1.06 | AM |
| 831 Carroll Ave | 283 | 1/23/2012 14:12 | | | | | calibrate | | | | Neg | 0.9 | 0.9 | < LOD | 6.19 | 1.08 | AM |

## Description of Column Titles

**Site:** The sequential number of the site (homes or buildings) inspected on a particular day.

**No:** The sequential XRF sample number for a given site.

**XL No/Map:** The sample number recorded on the maps of a particular site.

**Date:** Date that the XRF sample was analyzed.

**Time:** Time of XRF sample analysis.

**Floor:** The sample location floor level (0 = basement, 1 = first floor, 2 = second floor).

**Room:** The specific location where the sample was analyzed on the site. Calibrate is also recorded in this column when appropriate.

**Side:** Side of the room based on sampling methodology as described earlier in this report. The only four sides that can be designated are **A, B, C,** and **D.**

**Structure:** This refers to the general building component that the test was performed on. It may also include modifications such as: upper, lower, exterior, interior, right, and left.

**Feature:** Specifies additional information about a structure.

**Condition:** Describes whether the surface being tested is **Intact:** good condition; **Fair:** less than 2 square feet of damage to large interior surface, i.e., wall, less than 10 square feet of damage to large exterior surface, i.e., outside walls, or less than 10% damage to small surface areas, i.e., baseboards, trim, etc.; **Poor:** more than 2 square feet of damage on large interior surfaces, more than 10 square feet of damage to large exterior surface areas, or more than 10% damage to small surface areas.

**Substrate:** Refers to the material that the structure was made of, i.e., wood, concrete, drywall, etc.

**Color:** Color of surface tested.

**Result:** The lead concentration in $mg/cm^2$ as determined with L-shell and K-shell X-ray data.

**PbL($mg/cm^2$):** The lead concentration as determined with L-shell X-ray data.

**RES:** Results: POS - above action level, NEG - below action level.

**PbK:** The lead concentration in $mg/cm^2$ on the K-shell X-ray data spectrum.

**PbC:** The combined lead concentration in $mg/cm^2$ of the L-shell and K-shell X-ray data spectrum.

**Depth:** This is the index that is a qualitative indication of the depth of the lead in paint. As the number approaches 1, the lead is concentrated close to the top layers of paint. The largest number available for depth index is 10. The greater the number, the more likely interfering elements may have been detected.

**Duration:** The length of the XRF sample analysis in seconds.

**Inspector:** When multiple inspectors are used, this number indicates who sampled at the time indicated.

**Note:** This refers to any notes that were collected during the analysis of the particular sample. Then can be found on the field data sheet titled "Lead-Based Paint Inspection Data Page."

## SAMPLING METHODOLOGY

Buildings were systematically inspected for lead-based paints. The **A** side of the building is the side facing the street. Starting from the **A** side, the other sides are lettered consecutively (**B, C, D**), going clockwise around the building.

Inside the unit, each floor was assigned a number starting with **0** for the basement, **1** for the first floor, and **2** for the second floor.

Some rooms that are unique in the building are named on the inspection report. These would include things like pantry, kitchen, halls, bathrooms, and staircases. If there is more than one of a certain type of named room, then they are numbered (e.g., staircases to basements are numbered staircase 1, while staircases to the second floor are labeled staircase 2). Room numbering starts in the **A-D** corner of the building and continues clockwise from that point.

Within each room of the building, each of the sides of the room are named. The naming of walls in a room, for instance, follows the same pattern as that used on the exterior of the building, namely, the street side of each room is labeled **A,** and then clockwise from that wall, walls are labeled **B, C, D**.